U.S. Army Corps of Engineers
Directorate of Public Works

Performance Work Statement

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C.1. GENERAL INFORMATION

C.1.1. INTRODUCTION

This Performance Work Statement (PWS) provides a comprehensive description of the Directorate of Public Works (DPW) Operations Division services required to support the United States Corps of Engineers (USACE) Engineering Research and Development Center (ERDC), hereafter referred to as ERDC. It is the focal point of the cost comparison competition being conducted under the provisions of Office of Management and Budget (OMB) Circular A-76 (revised 29 May 03) hereafter referred to as "the Circular," providing the Government and prospective commercial contractors with a structured process for the comparison of costs between the Government and the private sector for performing required commercial services. This document contains all information available at the time of publication relating to administrative and technical responsibilities, performance requirements, and workload estimates. The term "Service Provider" (SP) is used throughout this document and applies to the offeror selected to perform this PWS, whether federal Government or commercial contractor, unless otherwise specified. The goal of this PWS is to obtain efficient, cost-effective performance-based services. The layout of the PWS is as follows:

- Section C-1. (General Information) – Provides general information necessary to understand the requirements of the PWS.
- Section C-2. (Definitions and Acronyms) – Provides the definitions and acronyms used throughout the PWS and in performance of the stated services.
- Section C-3. (Government-Furnished Property and Services) – Provides the property and services the Government will provide to the Service Provider in performing the PWS stated services.
- Section C-4. (Service Provider-Furnished Property, Facilities, and Services) – Provides information on the property, services, or support the Government will not provide to the Service Provider in performing the PWS stated services and that may be required or necessary for Service Provider performance.
- Section C-5. (Specific Services/Tasks) – Provides the required services/tasks the Service Provider shall perform to meet the requirements of the USACE DPW solicitation.
- Section C-6. (Applicable Publications and Forms) – Provides the mandatory/advisory regulations, directives, policies, instructions, and forms that are utilized in the performance of the PWS stated services.
- Section J (Technical Exhibits [TEs]) – Provides greater detail supporting information pertaining to the services/tasks stated in the PWS.

C.1.2. MISSION

The DPW's primary mission is to be: "*Principal advisor to the Commander and the*

Director for facility Master Planning. Provides direct support to each of the U. S. Army Engineer Research and Development Center (ERDC) laboratories in the form of engineering services, providing and acquiring facility operations and maintenance services, and managing and maintaining military family housing."

The DPW Operations Division's mission is to: "*Support the laboratory researchers by providing facility maintenance and specialized emergency response functions*."

C.1.3. BACKGROUND

The USACE in compliance with the President's Management Agenda and OMB directives has initiated actions to review functions identified in the Federal Activities Inventory Reform (FAIR) Act as commercial in nature and conduct commercial activities competitions with private sector firms for selected functions. These reviews and competitions must be accomplished within the priority of meeting USACE mission objectives that will be built on workforce core competencies, strategic management of human capital, USACE 2012 plans and business process reengineering initiatives.

C.1.3.1. ORGANIZATION

The USACE is headquartered in Washington, DC with offices worldwide, divided into 8 divisions, 41 districts, 3 centers of expertise, Research and Development (R&D) labs, and field operating agencies. Its mission is to provide engineering services to the Army and the nation, including planning, designing, building and operating water resources and other civil works projects (such as Navigation, Flood Control, Environmental Protection, and Disaster Response). In addition, it includes designing and managing the construction of military facilities for the Army and Air Force (Military Construction), as well as providing design and construction management support for other defense and federal agencies (Interagency and International Services).

The Waterways Experiment Station (WES) is the headquarters location for ERDC, part of the Department of Defense (DoD) laboratory system. ERDC's mission is to conceive, plan, study and execute engineering investigations and research and development studies in support of the civil and military missions of the USACE and other federal agencies. Four of 7 ERDC laboratories are located at the WES site in Vicksburg, Mississippi — Coastal and Hydraulics, Geotechnical and Structures, Environmental, and Information Technology.

One of the other 7 ERDC laboratories is the Cold Regions Research and Engineering Laboratory (CRREL), located in Hanover, New Hampshire. The mission of CRREL is to gain knowledge of cold regions through scientific and engineering research and put that knowledge to work for the nation, the DOD, and USACE. CRREL is the DOD's only laboratory that addresses the problems and opportunities unique to the world's cold regions.

C.1.3.2. FAIR ACT COMPLIANCE

The Federal Activities Inventory Reform (FAIR) Act of 1998 (P.L. 105-270),

requires federal agencies to prepare and submit to the OMB inventories of commercial activities performed by federal employees. OMB Circular A-76 further requires agencies to submit inventories of their inherently governmental activities to OMB. The Circular and the FAIR Act provide guidance on the development of the inventories and on competition and costs. USACE will utilize the FAIR Act principles in Commercial Activities (CA) and Competitive Sourcing (CS) A-76 initiatives.

C.1.3.3. A-76 IMPLEMENTATION
Federal agencies are experiencing an intense focus on the demands for effective performance management programs as provided for under the FAIR Act and the Circular. These mandates require review of operations for maximizing efficiency without loss of service. USACE established a Strategic Sourcing Program Office (SSPO) to plan and implement productivity and process improvement strategies of the President's Management Agenda, the Circular, and the Secretary of the Army's Third Wave initiatives.

C.1.3.4. COST COMPARISON
As part of their plan to accomplish one of the Presidential initiatives, USACE identified DPW Operations Division as a candidate for cost comparison. This activity will address the President's Management Agenda for improving management and performance.

C.1.3.5. COMPETITION AREA
DPW Operations Division work is provided at 3 locations. Two of the sites, the DPW Operations Division work performed in Vicksburg, MS and Hanover, NH, will be the focus for this competition. Following are the functional areas that will be covered at each location.

- Vicksburg, MS
  - Carpenter Shop
  - Electric Shop
  - Pipe Shop
  - Construction Group
- Hanover, NH
  - Buildings and Grounds Section
  - Refrigeration Section

C.1.4. SCOPE OF WORK

The SP shall provide personnel, management, and other properties and services, not furnished by the Government, that are necessary to perform the USACE DPW Operations Division tasks and functions as defined in this PWS. Work shall consist of but not be limited to:

A. Electrical maintenance, installation and removal, interior and exterior, low and medium voltages (up to 15,000 volts)

B. Structural maintenance, interior and exterior
C. Demolition activities, including asbestos removal
D. Refrigeration (including a large ammonia based refrigeration system) maintenance, installation, and removal at the Hanover site only
E. Heating, ventilating, and air conditioning (HVAC) maintenance, installation, and removal, at the Hanover site only
F. Plumbing maintenance, installation, and removal including water lines, gas lines, and sewage lines,
G. Roads and grounds maintenance, excluding grass-cutting
H. Trichlororoethylene (TCE) plant maintenance and operation at the Hanover site only
I. Emergency response, for electrical, HVAC, refrigeration, roads and grounds maintenance, and plumbing emergencies
J. Ammonia leak emergency response, at the Hanover site only.

The customers and user will be ERDC to include: Headquarters ERDC, Laboratory customers and the Command Staff Division Elements at the Vicksburg and Hanover sites.

C.1.4.1. WORK RESPONSIBILITY

The SP shall plan, program, administer, manage, execute and complete the work necessary to provide the specified services. The SP shall comply with applicable Federal, State, and local laws, regulations, and directives to include applicable publications in Section C.6., Applicable Publications and Forms. The SP shall perform all administrative services, such as material procurement, quality control (QC), financial control, and correspondence, in order to meet PWS service requirements. The SP shall acquire and maintain accurate and complete records, files, and libraries of documents (if not Government-furnished as identified in Section C.6., Applicable Publications and Forms) to include Federal, State, and local regulations, codes, laws, technical manuals, and manufacturer's instructions and recommendations, which are necessary and related to the PWS services being provided. The SP shall compile, maintain, and submit to the Government historical data, required reports, and information as specified by Contract Data Requirements Lists (CDRLs) in TE 6. The SP shall also ensure all services provided are accomplished in accordance with applicable Federal, State, and local laws, standards, codes, regulations, and directives. The SP shall provide quality customer service to include timely response and professional and polite contacts with customers.

C.1.4.2. CONTRACTING OFFICER OVERSITE

The SP shall perform services under the direction of the Contracting Officer (KO). The KO will designate specific technical representatives (referred to as Contracting Officer's Representative [COR], or Contracting Officer's Technical Representatives [COTR]) for specific locations where services are to be performed. Responsibility for Contract oversight at an individual location may be delegated to specific Government personnel as approved by the KO.

C.1.4.3. WORK ENVIRONMENT

The DPW Operations functions are located at the WES Installation at 3909 Halls Ferry Road, Vicksburg, MS 39180 and at the CRREL Installation at 72 Lyme Road, Hanover, NH 03755.

C.1.4.3.1. LOCATION DESCRIPTION

The installation in Vicksburg encompasses 596.76 acres with approximately 167 buildings and structures, with square footage listed in TE 4. Types of occupancy and usage include office buildings, laboratories, training facilities, residential housing, hangers, storage facilities, warehouses, industrial shops, and recreation facilities. The USACE DPW Installation in Vicksburg also supports the Big Black Test Site located in Warren County, MS. Installation maps are attached and blueprints are available at the DPW Engineering Division Offices in Vicksburg.

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The USACE DPW Hanover Installation consists of 33.46 acres and approximately 22 buildings and structures, with square footage listed in TE 4. Types of occupancy and usage include office buildings, laboratories, training facilities, warehouses, industrial shops, water treatment plant, ammonia refrigeration systems, greenhouse, child development center, and recreation facilities. Installation maps are attached and blueprints are available at DPW Engineering Division Offices in Hanover.

C.1.4.3.2. NORMAL HOURS OF OPERATION

The SP shall conduct business and respond to all requirements during the normal hours of operation. The normal hours of operation for the USACE DPW functions are 7:00 A.M. to 4:00 P.M., Monday through Friday, except legal Federal Holidays. The Government has the option to permanently change the hours and days of operation. Situations may require extended hours of operations, to include research activities, contingency operations, or weather emergencies.

C.1.4.3.3. WORK SCHEDULE

The SP shall schedule and arrange work so as to cause the least interference with the normal occurrence of the Government's business and mission. Experiments and laboratory activities are not to be interrupted or compromised by planned outages or disruption of services. In those cases where some interference may be essentially unavoidable, the SP shall be responsible to make every effort to minimize the impact of interference, inconvenience, equipment downtime, interrupted service, unsafe conditions, and customer discomfort. Such scheduling may require work to be accomplished at times other than normal hours of operation.

C.1.4.3.4. EMERGENCY ON-CALL HOURS

The emergency on-call hours of operation for the USACE DPW functions are

24 hours a day, 7 days a week, including all Federal holidays. The SP shall respond within established timelines (see paragraphs C.1.6.4.1., Priority 1 – Emergency and C.1.6.4.5., Response and Completion) to an emergency situation with qualified personnel inside and outside of normal duty hours.

C.1.4.3.5. SP PROJECT MANAGER(S)'S HOURS OF OPERATION
The SP Project Manager(s) or their designated Alternate(s) shall be physically on-site at both locations and available to conduct overall management coordination and to furnish liaison with the Government during normal hours of operation Monday through Friday, excluding Federal holidays, unless otherwise directed by an authorized Government representative. The SP Project Manager(s) or Alternates(s) must be available at all times in the event of an emergency situation requiring their attention or intervention. This availability shall be detailed in the Emergency Notification Procedure outlined in paragraph C.1.6.4.6.

C.1.4.3.6. FEDERAL HOLIDAYS
The following days in each calendar year are identified as Federal Holidays:

New Year's Day, January 1 (see note)
Martin Luther King's Birthday, the 3rd Monday in January
President's Day, the 3rd Monday in February
Memorial Day, the last Monday in May
Independence Day, July 4 (see note)
Labor Day, the 1st Monday in September
Columbus Day, the second Monday in October
Veteran's Day, November 11 (see note)
Thanksgiving Day, the 4th Thursday in November
Christmas Day, December 25 (see note)

Note: When holidays occur on a Saturday, Federal employees are normally given the previous Friday off from work. When holidays occur on a Sunday, Federal employees are normally given the following Monday off from work. This situation may impact on seven-day work week operations.

C.1.5. PERSONNEL
The SP shall provide a work force possessing the skills, knowledge, required certifications, and training to perform the services required by this PWS. All SP personnel shall be fluent in English, have the ability to read instructions and job requests written in English, and possess verbal and written communication skills at a level to enable them to communicate with customers, Government employees, and fellow workers.

C.1.5.1. MINIMUM PERSONNEL QUALIFICATIONS
See Technical Exhibit 7.

C.1.5.2. SERVICE PROVIDER PROJECT MANAGER(S)

The SP Project Manager(s) shall ensure that work is performed in compliance with the PWS specifications. The SP Representative(s) shall be the point of contact (POC) with the Government and shall have full authority to act or make decisions for the SP on all matters pertaining to this PWS. The SP Project Manager(s) shall have knowledge of all technical crafts under their supervision and at least 3 years in the last 5 years of supervisory experience on similar contracts. Similar contracts are defined as comprehensive maintenance of facilities, similar to the scope described in this PWS and of a comparable size. The SP shall employ and maintain qualified personnel in this position who have knowledge of requirements, forms, publications, policies, and regulations.

C.1.5.2.1. ALTERNATE

The SP shall designate and make available an alternate(s) on-site SP Project Manager(s) who shall be authorized to act on behalf of the SP in the absence of the on-site SP Project Manager(s). The qualifications of the Alternate(s) shall be the same as the SP Project Manager except they shall have a minimum of 2 years of experience as a SP Project Manager or Alternate of a multi-discipline work force performing facilities maintenance functions of which at least 1 year is for a similar size and type as this contract.

C.1.5.2.2. NOTIFICATION OF ON-SITE SP PROJECT MANAGER(S) AND ALTERNATE(S)

The SP shall provide the name, address, telephone number, and written resume for the SP Project Manager(s) and Alternate(s) to the KO/COR with their proposal. The proposal shall include an organizational chart delineating the proposed reporting structure and its relationship to the parent organization. Any change in SP Project Manager(s) and Alternate(s) will require the written approval of the KO. The SP shall submit request to the KO in writing no less than 10 working days in advance of the proposed change.

C.1.5.3. SERVICE PROVIDER PERSONNEL IDENTIFICATION

Thirty calendar days prior to start of contract performance, the SP shall submit to the KO/COR the names, telephone numbers, work assignments and personal qualifications, certifications, and list of accomplished training of personnel scheduled to perform work under this PWS. The information submitted shall be in the form of a roster and include an organizational chart and evidence of the requisite certification or qualification. The SP shall notify, the KO/COR in writing of changes in personnel 5 working days in advance of change. Whenever advance notice of change is not possible, notification is to be made as soon as the change occurs, but no later than 24 hours after the effective date of the change.

C.1.5.4. CERTIFICATION, QUALIFICATION, AND TRAINING

The SP will ensure that semi-annual, annual, and other periodic re-certifications are kept current and in accordance with applicable federal, state, and local laws. In addition to the reasons stated above in C.1.5.3., Service Provider Personnel

Identification, the SP will provide an updated roster when an employee completes any training courses, receives a required certification, or experiences any other changes in their requisite job qualifications. This roster will be provided to the COTR within 30 calendar days prior to start of the performance period and within 5 working days of any change.

C.1.5.5. SUBCONTRACTORS

The SP shall submit the information and qualifications of any subcontractors to be used in the performance of the PWS requirements to the COTR for concurrence prior to performance of work. Subcontractor information shall include company names, contact names, addresses, and telephone numbers. Subcontractor personnel shall be subject to the same personnel requirements as specified in this PWS.

C.1.5.6. EMPLOYMENT OF FOREIGN NATIONALS

In the event, the SP chooses to employ a foreign national; they shall follow the procedures outlined in ER 380-1-18 to obtain security clearance prior to allowing access to the installation.

C.1.5.7. CONFLICT OF INTEREST

The SP shall not employ off-duty COTR or Government surveillance personnel (i.e. Quality Assurance Specialist, Technical Monitors, Inspector or other persons), if such employment would create a conflict of interest or be contrary to any law, regulation, Executive Order, or policy of the Department of Defense or USACE.

C.1.5.8. CONDUCT OF PERSONNEL

In accordance with 5 CFR, Part 2635 Standards of Ethical Conduct for Employees of the Executive Branch, the KO/COR may require the SP to immediately remove from the job site an SP employee cited for misconduct, security violations, or actual or suspected use of alcohol, drugs, or other incapacitating agents. The removal from the job site shall not relieve the SP of the requirement to provide sufficient personnel to perform the services as required by this PWS.

C.1.5.9. DRIVING RESTRICTIONS

All SP personnel operating Government vehicles or equipment shall possess a current and valid driver's license with all class and commodity endorsements required by state law for the type of vehicle operated and commodity being transported. The SP must follow driving, testing, and licensing regulations outlined in AR 600-55 and AR 58-1. As required by AR 190-5, SP personnel shall follow all federal, state, and local laws for continued compliance with inspection and insurance laws. SP employees must operate vehicles safely and in accordance with all federal, state, local, and installation traffic laws. If the SP utilizes General Service Administration (GSA) leased vehicles, all GSA and Center regulations must be followed.

C.1.5.10. IDENTIFICATION BADGES
The SP personnel shall wear their Government-issued Common Access Cards (CACs) as identification badges at all times while on duty. These badges must be in a visible location on their person without hindering safe working habits.

C.1.5.11. PERSONAL APPEARANCE
The SP shall ensure that employees wear clean, safe, serviceable clothing and footwear in the workplace. The SP shall ensure that employees practice high standards of personal hygiene and maintain a clean and neat appearance while providing PWS services.

C.1.6. GENERAL REQUIREMENTS - WORK ORDER (WO) AND WORK FLOW
The SP shall perform the tasks specified in C.5, Specific Tasks, and provide all services and management required to perform the work described and meet all performance standards as specified. Standards are specified in the PWS, attached Performance Requirement Summary (PRS), TEs, and Mandatory Publications for the required work. Where publications containing standards are advisory in nature, acceptance of the work shall be based on the reasonable and logical judgment of the COTR using the standards as guidance.

C.1.6.1. TYPES OF WORK ORDERS
Within the scope of this PWS, there are 2 types of WOs:

C.1.6.1.1. MAINTENANCE WORK ORDER (MWO)
The SP shall perform all MWOs in accordance with the PWS specifications and SP prepared schedules approved by the COTR. Maintenance work includes items specified as scheduled work. MWO checklists are provided in TE 5. Discrepancies noted while performing PM shall be reported in accordance with paragraph C.1.6.2., SP Identified Work.

C.1.6.1.2. WORK ORDER
The SP shall perform all properly issued Level II and Level III WOs in accordance with this PWS specification. The SP shall provide cost estimates, upon request, for Level II WOs, and for all Level III WOs in accordance with paragraph C.1.6.8., Cost Estimate. The SP shall perform all Level II and Level III WOs in accordance with the accepted cost estimates and these PWS specifications.

C.1.6.2. SP IDENTIFIED WORK
The SP shall report all SP Identified Work to the COTR. The SP shall submit a WO request for all SP Identified Work within the scope of the PWS. The COTR will review the WO request and may assign a priority and issue a WO to the SP.

C.1.6.3. LEVELS OF WORK:
Within the scope of this PWS, there are 3 levels of work.

C.1.6.3.1. LEVEL I (SCHEDULED TASKS)

The SP shall operate and maintain the facilities, equipment, and other items specified as scheduled tasks as identified in sections C.5.1 through C.5.6. Level I work is firm fixed price. The SP shall request and the Government will issue MWOs for all scheduled work. Monthly MWO's will be issued for tasks performed on monthly, weekly, or a daily basis. Maintenance that is performed on an annual, semi-annual, or quarterly basis will have MWO's issued on an annual, semi-annual, or quarterly basis. This level of work is the SP's responsibility under the firm fixed-price portion of the contract. The SP is not responsible for preventive maintenance (PM) on new equipment that has not yet been added to TE 5. The COTR will issue a Level II or Level III WO for PM on new equipment, to keep the equipment in proper condition until such time as the contract can be modified. . Modifications to reflect new equipment will normally be made at the start of each option year.

C.1.6.3.2. LEVEL II AND LEVEL III (UNSCHEDULED TASKS)

Level II and Level III tasks are specified as unscheduled tasks as identified in sections C.5.1 through C.5.6. Level II tasks are firm fixed price with reimbursable material, supplies, and equipment. Level III tasks are Indefinite Delivery/Indefinite Quantity. The Government will issue all Level II and Level III work orders. The total cost of a WO shall include labor cost, equipment rental, disposal, and direct material cost. Direct materials costs include all direct costs for parts, supplies, installed equipment, components, appliances, and fixtures and other materials required to complete the job or to maintain current level of operations during repairs. Freight and sales tax may be included in direct material costs. Direct materials costs do not include indirect or overhead costs. Government-furnished property (i.e., carpet, machinery, stock items) will not be included in direct material costs.

C.1.6.3.2.1. LEVEL II

Level II tasks are individual work orders which require less than 32 man-hours to perform (and the work is less than $2,000). This work shall be considered to be maintenance subject to the Service Contract Act (SCA). Painting work of 200 square feet or more to be performed under an individual work order shall be subject to the Davis Bacon Act (DBA) regardless of the total work-hours required. Cost estimates are not required for Level II work unless specifically requested by the COTR. In these cases, COTR approval of the cost estimate will be required before proceeding with the work.

C.1.6.3.2.2. LEVEL III

Level III tasks are individual work orders which require a total of 32 or more man-hours to perform (and the work is over $2,000). This work shall be considered to be repair work subject to the DBA. This level of work will require the SP to obtain COTR approval of a cost estimate before

proceeding with the work.

C.1.6.3.2.3. LEVEL II TO LEVEL III

The SP shall immediately notify the COTR verbally of an anticipated change in WO level from Level II to Level III. The notification shall be made as soon as the SP becomes aware of the anticipated change and no later than the time that the total costs, as defined in paragraph C.1.6.3.2.1., Level II, are estimated to exceed 75% of the Level II ceiling. The SP shall not exceed the Level II ceiling until the COTR has ordered the work as an approved Level III WO. If the SP exceeds the Level II WO dollar limit without notifying the COTR, it will be considered a reporting deficiency under the Level II reporting requirement of the PRS.

C.1.6.4. PRIORITIES

Within the scope of this PWS, there are 4 priority categories of WOs. The COTR will assign a priority to each WO issued. The SP shall comply with Government established priorities; all questions concerning priorities shall be referred to the COTR. The priorities are as follows:

C.1.6.4.1. PRIORITY 1 – EMERGENCY

Emergency work is defined as work that takes priority over all other WOs and requires immediate action, including diverting personnel from other jobs, if necessary, to cover the emergency. Usually, the work is necessary for the protection of health, safety, security of sensitive Government property, or to prevent damage to property. SP Personnel shall be tasked on a full-time basis on the repair work until the work is completed. Level III emergency facilities maintenance work may be initiated upon verbal authorization of the KO/COR or COTR. Limitations will be announced to the SP at the time of the verbal authorization. Verbal authorization shall be documented by the SP to include time, date, who, what, where, and other pertinent information, and shall be retained in the files. The COTR will provide written confirmation within 48 hours. Examples of Priority 1 - Emergency work, include but are not limited to, the following:

A. Gas or ammonia leaks.
B. Electrical problems which could lead to personal harm, damage to property, or result in a power failure affecting occupied buildings.
C. Loss of heat during periods of cold.
D. Serious water leaks causing damage to property or interruption of service.
E. Leaking roofs where damage to building contents may result.
F. Inoperable plumbing fixtures or drain lines where no alternate facilities are available in the building.
G. Loss of air conditioning where it is required for data processing, or other essential purposes. A complete loss of air conditioning in major high occupancy buildings will also be considered Priority 1 -

Emergency.

H. Door and lock repair where necessary to close a building for security.
I. Broken glass where it is necessary to close a building for security.
J. Protection from weather damage.
K. Problems arising from, but not limited to flooding of occupied floors (including basements) or streets from clogged sanitary sewers, storm sewers, or drains.
L. Problems arising from natural disasters, such as flash floods and storms to include, but not limited to, washouts in roads, plugged drainage, fallen trees, landslides, or barricades.
M. Electrical failure of alarm systems.
N. Preparation for storms.
O. Command Interest project.
P. Fire damage.
Q. Hanover Supervisory Alarms

In some instances, the emergency will be alleviated prior to the WO being entirely completed. For example, a gas leak emergency (depending on the system affected) may be alleviated once the gas has been secured, prior to the leak being repaired. In these instances, the WO shall remain open as a Priority 1 WO until all work is complete. However, the COTR may modify the due date and authorize the WO to be handled as a Priority 2 WO once the emergency has been alleviated.

C.1.6.4.2. PRIORITY 2 – URGENT

Urgent work is defined as work that shall be accomplished by the first available employee. The SP is not required to divert personnel from other jobs for this work, unless directed by the COTR.. This category includes work required to correct a condition that could become an emergency, or work that could seriously affect morale. Examples of Priority 2 - Urgent work includes but is not limited to, the following:

A. Minor electrical problems which will not lead to personal harm, damage to property, or result in a power failure affecting occupied buildings.
B. Minor water leaks where no damage to property is likely to occur.
C. Minor HVAC or refrigeration problems.

C.1.6.4.3. PRIORITY 3 – HIGH PRIORITY

High Priority work is defined as work that has an impact on morale or is priority due to mission requirement to meet commitments. The SP is not required to divert personnel from other jobs for this work, unless directed by the COTR.. Examples of high priority work include, but are not limited to:

A. Repair door closer on interior door.

B. Make new keys for door.
C. Replace flickering light bulb in office where other bulbs provide light.
D. Repair leaking faucet in restroom.

C.1.6.4.4. PRIORITY 4 – ROUTINE

Routine work is defined as work that does not meet the criteria for Priority 1, 2, or 3 work. Work in this category should typically be accomplished in the order that the COTR requested it. These jobs include required work that, if not accomplished, would only continue an inconvenience or an unsightly condition. Examples of routine work include, but are not limited to:

A. Level I WO.
B. Insufficient hot water.
C. Minor heating problems (not operating at full efficiency when weather is moderate).
D. Install additional wall receptacle.

C.1.6.4.5. RESPONSE AND COMPLETION

Unless otherwise specified, the SP shall respond to and complete work as follows:

PRIORITY	RESPONSE	COMPLETION
1 – Emergency	During normal working hours, within 15 minutes of notification and working towards resolution within 30 minutes, or; Outside normal working hours, within 90 minutes and working towards resolution within 2 hours	Within 24 hours or as specified by the COTR as defined in C.1.6.4.1, Priority I Emergency
2 – Urgent	By 12:00 noon of next working day	Within 2 working days
3 – High Priority	Within 72 hours	Within 14 calendar days
4 – Routine	Within 10 calendar days or as specified in the WO	Within 28 calendar days or as specified in the WO

C.1.6.4.6. EMERGENCY NOTIFICATION PROCEDURE

The SP shall provide a POC with a telephone number to receive verbal assignment of Priority 1 - Emergency Work 24 hours a day, 7 days a week. The SP shall furnish to the COTR an Emergency Notification Procedure 30 working days prior to the end of the phase-in period. The Emergency Notification Procedure shall contain a roster with personnel's name, duty phone number and after duty phone number and the procedure the SP will employ to comply with emergency requirements. The SP shall provide an updated roster to the COTR within 24 hours of a personnel change. After normal work hours, the SP shall receive requests for Emergency Work as discussed in paragraph C.1.6.4.1., Priority 1 – Emergency, and shall maintain

a log of all calls received and action taken.

C.1.6.4.7. EMERGENCY WO COMPLETION MEASUREMENT
Response and completion times will both be measured from the date and time the SP receives the WO, or the verbal assignment of Priority 1 Emergency Work.

C.1.6.5. REWORK
The SP shall, when directed by the COTR, perform work that was not performed, or re-perform work that was performed in an unsatisfactory manner. Work that does not meet the contract specifications, the COTR's work request specification, the applicable National Codes, or the material manufacturer's written specifications will be deemed unsatisfactory. The response time and quality requirements as set forth in this specification shall also apply to rework actions. A new WO shall not be issued for rework.

C.1.6.6. WORK CONTROL
The SP shall schedule, control, and perform all work described in this PWS in accordance with all terms and conditions contained in this PWS. The SP shall develop and provide written work schedules for all Level I WOs. Two copies of all PM schedules shall be provided to the COTR for approval. The SP shall provide the PM schedules 15 calendar days prior the end of the phase-in period. The SP shall determine whenever maintenance described as unscheduled tasks in this PWS is required.

C.1.6.6.1. SERVICE OUTAGES

C.1.6.6.1.1. PLANNED OUTAGES
The SP shall plan and coordinate all service outages with the COTR for all installation buildings and housing. Services shall include water, natural gas, liquid petroleum gas, fuel oil, sewage, electrical power, HVAC systems, and refrigeration systems. The SP shall notify the COTR at least 7 calendar days prior to the scheduled outage. Notification shall include the date and time of the planned service interruption, areas affected, and an estimate of when normal service will resume. Coordination between the SP and building occupants affected by planned service interruptions will be accomplished via the COTR. In all cases, planned service interruptions shall be scheduled so as to cause the least possible disruption to normal occupant activities. This will typically require planned service interruptions to occur outside normal working hours.

C.1.6.6.1.2. EMERGENCY OUTAGES
The SP shall notify the COTR immediately after the service is interrupted for an emergency outage.

C.1.6.6.2. HANOVER SUPERVISORY ALARMS
Personnel receive alarms as alerts through hand held radios. The SP shall respond to all supervisory alarms as Priority 1 emergencies. A list and description of the alarms is provided in TE 8.

C.1.6.7. SCHEDULED MAINTENANCE
PM frequencies are specified in Section C.5., Specific Tasks. The PM requirements are subject to modification during the contract, as directed by the KO. The SP will receive proper compensation for additions, and the Government will be compensated for deletions. If a schedule change is required, the Government will notify the SP at least 5 working days prior to change.

C.1.6.7.1. PREVENTIVE MAINTENANCE CHECKLISTS
The SP shall submit PM checklists certifying that all items requiring inspection have been inspected. The SP shall also identify any work that could not be performed, note all deficiencies, and indicate any corrective work required. The SP shall submit the checklists by the 5th working day after the completion of the requirement.

C.1.6.7.2. PREVENTIVE MAINTENANCE RECORDS
The SP shall maintain PM records for all PM required and identified in Section C.5. Specific Tasks. The PM records shall reflect PM performed including scheduled and accomplished dates. The SP shall update the PM records on a monthly basis within 10 calendar days after the last day of the month. PM records are the property of the Government and shall be delivered to the COTR within 30 calendar days of the termination or close out of the contract. The PM records shall be made available for Government review upon request.

C.1.6.7.3. LEVEL I SCHEDULE MEETINGS
The SP shall attend scheduled meetings with the Government when requested by the KO/COR or COTR, to ensure that the SP's Level I work schedules are compatible with Government work schedules, review progress, and discuss problems. Revisions or changes to schedules shall be submitted 1 working day in advance and shall indicate reason for revision or change. All revisions and changes are subject to COTR review and approval prior to implementing such revisions or change.

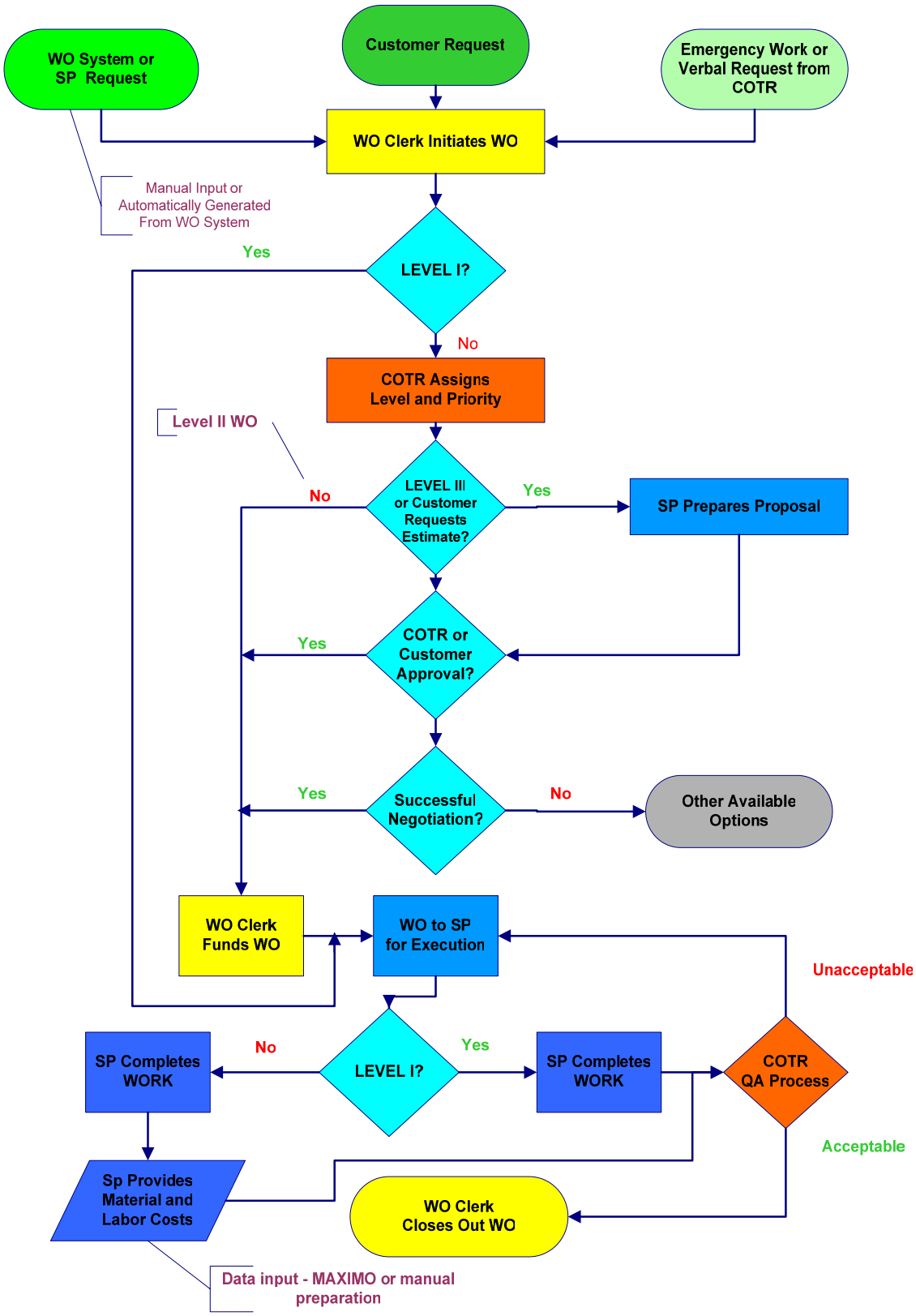
C.1.6.8. COST ESTIMATE
The SP shall prepare a cost estimate for all Level III work. The SP shall also prepare a cost estimate for any Level II work when requested by the Government. The SP shall submit a cost estimate to the COTR for approval within 5 working days of a request for an estimate. If necessary, the SP may submit a written request for additional time to the COTR for approval. Provided the Government determines that the estimate is fair and reasonable, the COTR will direct the SP to perform the work. If the Government determines that the estimate provided is not

fair and reasonable, the COTR has the option to negotiate with the SP or choose to satisfy the work requirement through other contractual means. Cost estimates shall include labor hours, equipment costs, and a bill of materials as described in Section C.1.6.3.2. LEVEL II AND LEVEL III. The COTR will evaluate accuracy of cost estimates under the reporting category of the PRS. Accurate cost estimates are within ± 10% of actual cost.

C.1.6.9. WORK ORDER PROCESS

The purpose of the WO Process is to ensure all work is properly authorized, prioritized, and approved; to ensure customers are well informed; and to provide data needed to manage work. All work shall originate from and be captured on a valid WO. The following flowchart depicts the WO Process as described in this section.

USACE DPW WO Process Flow Chart



C.1.6.10. WORK ORDER SYSTEM
The SP will receive WOs throughout the workday. The SP shall complete the SP information portion of the completed WO within 7 calendar days after completion of work. The SP portion shall include itemized costs (labor and materials as separate entries) and a complete description of the work performed.

C.1.6.11. SUB-CONTRACTORS
The SP is responsible for providing personnel to accomplish all work as set forth in this specification. The SP may elect to utilize sub-contractors for the accomplishment of some work; however the labor rates shall be determined in accordance the composite labor rates bid in The Schedule of Supplies/Services Price Sheet of the contract. If the specific labor category is not, the labor rate shall be the rate for the closest related listed labor category, or the applicable Davis-Bacon/Service Contract Act rate for the specific labor category, whichever is greater.

C.1.6.12. RECORDS AND REPORTS
The SP shall maintain complete and accurate operating, maintenance and repair records and prepare reports as specified below and in other paragraphs of the PWS. Unless otherwise specified, 2 copies shall be provided to the COTR. All records and copies of reports shall be turned over to the COTR within 30 days after contract completion or termination.

C.1.6.12.1. MONTHLY REPORTS
The SP shall provide the written monthly reports required in the PWS as well as a report of the current status of all Level III WOs and any Level I and Level II WOs that have exceeded their scheduled completion date. The SP shall provide the reports by the 5th working day of the month for the prior month's work. The SP shall notify the COTR of the completion of all Level III WO within 1 working day after accomplishment. The SP shall give verbal scheduling and status reports when requested by the COTR. The status of an item of work must be provided within 1 hour of the request during normal working hours.

C.1.6.12.2. REPORTS
All written reports required in the C.5., Specific Tasks, Section, as well as in the supporting TE 5 documents, will be due to the COTR within 5 working days of the completion of the work.

C.1.6.12.3. PROJECT FILE
The SP shall maintain a project file for each Level III WO. The COTR will have access to these files upon request. All documents shall be updated and filed within 10 working days of the completed transaction.

C.1.6.12.4. EQUIPMENT LISTS
The SP shall maintain, update and keep current all equipment lists provided in TE 5 Operation and Maintenance Data. The COTR will have access to these

lists upon request.

C.1.6.13. CONDITIONS AFFECTING PERFORMANCE
The SP shall report to the COTR repair needs of the facilities, unhealthy or hazardous conditions, or delays or interference with work caused by individuals not in the employ of the SP. The SP shall report to the COTR other circumstances that would affect performance of the work required in this PWS. Such written reports shall be made as expeditiously as possible to the COTR. In all circumstances, the written report shall be made not later than close of business on the same day of occurrence.

C.1.6.14. INSTALLED BUILDING EQUIPMENT REPLACEMENT
If, during Level II or Level III work, an item of installed building equipment is determined by the SP to be beyond economical repair, the SP shall provide a written recommendation to the COTR to replace the equipment. Substantiating data to support the recommendation shall be included. If the Government decides that such equipment should be replaced or repaired, and replacement or repair is authorized, the SP shall accomplish the work.

C.1.6.14.1. DOCUMENTATION
The SP shall provide justification documents with recommendations to purchase new and replacement equipment. The SP's justification shall be submitted in writing to the COTR and shall include the following information:

A. The age (purchase date) and original cost of the equipment recommended for replacement.
B. The cost of repair parts.
C. The replacement cost and availability.
D. The rationale for replacement rather than repair.
E. A statement that the replacement equipment will fit into the available space, performs the required function, and operates on available installed utility services.

C.1.6.14.2. SALVAGE AND DISPOSAL
The Government retains all salvage rights to replaced equipment of value. The Government will determine whether replaced equipment is of value. If an item is determined to be of no value, the SP shall dispose of it in accordance with applicable regulations. The Government will be responsible for the cost of disposal.

C.1.6.15. WORK COORDINATION
Prior to commencement of work the COTR will provide the SP with a contact for all facilities. The SP shall notify the contact individual 48 hours in advance of all Level III work, and shall inform the contact individual of what work is going to be done, and the length of time it is expected to last. The SP shall prearrange and coordinate with the contact individual for access to facilities. The SP shall report

to the COTR instances where access could not be obtained to facilities because the contact individual failed to be available at the prearranged time. The SP shall make return visits as required to accomplish the work. When reporting such instances, the SP shall provide the COTR with a copy of the WO and pertinent facts related to the incident, such as the number of attempts to obtain access. If work requires scheduled or unscheduled interruption, disconnection or cut-off of utilities to or within the installation, or requires that a facility be vacated, the SP shall request permission from the COTR and take action in advance (a) to notify the POC and the COTR, (b) to avoid damage to customer equipment, and (c) to minimize disruption of the activity's operation.

C.1.6.16. SP OFFICE

The SP shall operate an office at each of the Vicksburg and the Hanover sites. These offices shall be the SP's primary location for collecting and filing data, receiving, scheduling and recording work, and shall serve as the primary office for the SP's Project Manager(s). The offices shall be appropriately identified with a COTR approved sign. The SP shall ensure that at least 1 person is available at each of the offices during normal work hours as defined in paragraph C.1.4.3.2., Normal Hours of Operation, unless otherwise approved by the COTR.

C.1.7. SECURITY REQUIREMENTS

The SP personnel and all representatives of the SP shall abide by all security regulations referenced in Section C.6., Applicable Publications and Forms, of this PWS and shall be subject to security background investigations at the expense of the Government.

C.1.7.1. SEARCH AND SEIZURE

In accordance with 41 CFR Part 120-74, Facility Management, SP personnel and property shall be subject to search and seizure upon entering the federal complex. All persons and vehicles entering the installation will be subject to inspection for firearms, explosive, and dangerous weapons.

C.1.7.2. SECURITY ASSURANCE BACKGROUND INVESTIGATIONS

The SP shall apply for SP personnel security assurance background investigations 30 calendar days prior to the start of the performance period. Applications for personnel background investigations shall be made to the USACE ERDC Security Office regional representative pursuant to AR 380-67, Personnel Security. Applications for new hires should be submitted 10 working days prior to their start date. Should it become necessary to include management of classified property under the contract, the SP shall be required to employ personnel with appropriate formal security clearances prior to delivery of classified property to the installation. Applications for formal security clearances shall be made in accordance with the directives in AR 380-67. The USACE ERDC Security Office has the final authority in determining whether a security clearance is granted, and may revoke a security clearance at any time.

C.1.7.3. PHYSICAL SECURITY

The SP shall develop and implement a Physical Security Plan (PSP) in accordance with guidance contained in applicable security directives as listed in Section C.6., Applicable Publications and Forms, of this PWS. The PSP shall include all Government-furnished property for the performance of this contract. The PSP shall be submitted to the COTR 90 calendar days after contract award. The Government will perform final review and acceptance of the PSP and subsequent changes. Changes to the PSP shall be submitted to the COTR not later than 10 working days prior to the proposed effective date of the change. On a daily basis, the SP shall safeguard Government facilities and equipment. The Government will not be responsible for damage to the SP's property or to the SP personnel's personal belongings that are damaged or destroyed by fire, theft, accident, or other disaster. The SP shall be responsible for all costs incurred by the Government that are caused by the SP's failure to comply with the PSP.

C.1.7.4. KEY AND COMMON ACCESS CARD CONTROL

The SP shall control manual and electronic keys provided to the SP by the Government. Keys and CACs shall be protected against loss; and shall not be misplaced, duplicated, or left unattended by SP personnel, nor used by unauthorized SP personnel or other individuals. The SP shall develop and implement procedures to insure that keys and CACs issued to the SP by the Government are safeguarded. Procedures implemented shall be documented in the PSP.

C.1.7.4.1. REPORT OF LOST KEYS OR CACS

The SP shall report all occurrences of lost, duplicated, misplaced or misused keys or CACs to the COTR and Security Office within 24 hours after discovery of the occurrence. The written report shall provide complete details of the incident.

C.1.7.4.2. REPLACEMENT OF LOST KEYS

In the event a key is duplicated, misplaced, or lost, the Government may replace all locks and keys for that system. The SP shall reimburse the Government's direct costs for replacement of locks or re-keying required as a result of keys being duplicated, misplaced, or lost by SP personnel. The SP shall reimburse the Government for the direct costs incurred by the Government to replace or re-key locks as a result of keys being duplicated, misplaced, or lost by SP personnel.

C.1.7.5. ISSUANCE OF COMMON ACCESS CARD

The Government will provide a CAC for the SP personnel. All SP personnel must complete DD Form 1172-2, Oct 2002, to obtain CAC. The SP will turn in completed forms for all personnel requiring a CAC to the Security Office 10 days prior to the beginning of the phase-in period. Subsequent requests for badges will require a completed form to be submitted to the Security Office 5 days prior to the actual issuance date. The SP shall provide a list of SP personnel to the ERDC Security Office of individuals requiring after hours access to buildings. In the event the CAC does not provide access to an area requiring access to respond to

maintenance needs, such access will be handled on an individual basis through the COTR.

C.1.7.6. LOCK UP PROCEDURES
The SP shall secure all shops, work areas, offices, and storage facilities under their use. All doors, windows, and openings shall be secured by lock and key, or with the electronic locking system. The SP shall formulate a Lock-Up procedure and provide it to the COTR for approval. This procedure will be due, in written form, within 30 calendar days of the start of the phase-in period. After the Lock-Up procedure is approved, they shall become part of the PSP. Changes to the Lock-Up procedure shall be submitted to the COTR not later than 10 working days prior to the proposed effective date of the change.

C.1.8. SAFETY AND OCCUPATIONAL HEALTH

The SP shall safeguard and maintain all Government property as well as provide for the safety and well being of all personnel employed in the administration of this contract. The SP shall comply with the provisions of Occupational Safety and Health Act (OSHA) standards and USACE Safety and Health Requirement Manual EM-385-1-1. The SP personnel shall wear the PPE required by EM-385-1-1 during the performance of tasks requiring protective equipment or clothing.

C.1.8.1. SAFETY AND OCCUPATIONAL HEALTH PROGRAM
The SP shall develop and implement a Safety and Occupational Health Program for employees performing work under the PWS requirements. The SP shall comply with OSHA and USACE requirements; and utilize ER 385-1-85 as guidance to establishing their plan. The SP shall submit the Safety and Occupational Health Program to the COTR 90 calendar days after contract award. Revisions shall be submitted 10 working days prior to the proposed effective date of change.

C.1.8.2. FIRE PROTECTION
The SP shall comply with all OSHA, state, and installation directives for fire prevention and fire protection. The required Safety and Occupational Health Program required above shall, at a minimum, incorporate the installation's Fire Protection Plan and outline how the SP shall maintain and fulfill its role in this plan.

C.1.8.3. ACCIDENTS AND ACCIDENT REPORTING
The SP shall maintain an accurate record of accidents resulting in traumatic injury or death, and of accidents resulting in damage to Government property, supplies, or equipment. The SP shall report accidents in accordance with the requirements listed in EM-385-1-1 and AR 385-40. The SP shall make all accident reports within 24 hours of incident to the COTR and Safety Office. The SP shall be responsible for damage to Government property occasioned by the SP's negligence, carelessness, or fault.

C.1.8.4. HAZARDOUS MATERIALS HANDLING
The SP shall plan for spill clean up, containment and neutralization of all potential

hazardous materials/waste and health hazards expected to be encountered during performance of PWS services. The SP shall provide first responder spill containment and clean up service only. The SP shall request, utilize, and maintain on hand all hazardous waste/material handling safety equipment and clothing appropriate for the materials/hazards expected to be encountered. Hazardous Waste material handling safety equipment and clothing shall be furnished and maintained by the Government. Required Hazardous Material (HAZMAT) training and operations are outlined in 29 CFR 1910, 29 CFR 1926 and 40 CFR 763.

C.1.8.5. HAZARDOUS MATERIAL SPILL FIRST RESPONDERS
The SP shall furnish 5 employees who are qualified as Hazardous Material Spill First Responders as defined in 29 CFR 1910.12 to support the Hazardous Material First Responders Operations Level Spill Team at each site. A list of Hazardous Material Spill First Responders personnel and written verification of training will be due to the COTR 10 working days prior to the start of the phase-in period. Changes in personnel will require notification to the KO/COR, in writing, within 24 hours of change. The SP shall be responsible for all training. The Government will supply the Team Coordinator, Alternate Coordinator, and a Hazardous Materials Specialist. The SP shall respond to all spills as directed by the COTR.

C.1.8.6. HAZARDOUS COMMUNICATION
The SP shall also provide personnel with the required Hazard Communication (HAZCOM) training and award certifications that meet personnel requirements associated with HAZCOM. Required training and operations are outlined in 29 CFR 1910.1200.

C.1.8.7. MATERIAL SAFETY DATA SHEETS
The SP shall provide Material Safety Data Sheets (MSDS) for all materials brought into the installation and maintain the MSDS for all materials currently on site and utilized to perform their assigned tasks. MSDS Notebooks and labeling shall be in place 30 calendar days prior to the end of the phase-in period, and within 24 hours of any new material brought into the installation. The SP shall comply with all stipulations outlined in 40 CFR, Part 261.

C.1.8.8. HANDLING ASBESTOS
The SP shall comply with current regulations issued by the Environmental Protection Agency (EPA), Bureau of Mines, and the National Institute for Occupational Safety and Health for handling asbestos. These regulations include procedures for the use of respirators, special clothing, protective masks and disposal. The SP must be qualified to perform Class II asbestos abatement as defined in 29 CFR 1926.1101 Subpart Z and shall have the training as specified in 40 CFR 763 Subpart E. The SP shall treat and handle with caution insulation, clothing and other tangible items containing asbestos. The SP shall provide and display prescribed “DANGER” signs in all areas where handling, cutting, insulating, repairing and removing asbestos is taking place. Signs shall be posted

at such a distance from these locations that an employee may read the signs and take necessary protective steps before entering the area marked by the signs. Signs shall be posted at all approaches to such locations.

C.1.8.9. HANOVER PROCESS SAFETY MANAGEMENT (PSM)
The refrigeration system in the Ice Engineering Facility (IEF) at the Hanover site uses anhydrous ammonia as a refrigerant. The OSHA sets requirements for Process Safety Management of this highly hazardous chemical in 29 CFR 1910.119. All employees that operate and maintain the ammonia system must understand the safety and health hazards of this refrigerant and the refrigeration system. The SP shall provide employees trained in all aspects of the PSM program as detailed in Section C.5.5.2.2.3., Process Safety Management.

C.1.8.10. CLEANUP
The SP shall maintain all shops, mechanical rooms, offices, storage areas, and work areas in a clean and neat manner to prevent unsafe working conditions. Floors shall be kept free of debris, waste material, and rubbish; liquid spills mopped up; and tools and equipment stored in proper containers. Upon completion of a job, the SP shall leave work areas in a clean and neat manner. Flammable materials need to be properly stored at the end of their use or the end of each working day.

C.1.9. QUALITY CONTROL

The SP shall establish and implement a complete Quality Control Program (QCP) that, at a minimum, includes (1) a self-inspection plan; (2) internal staffing; and (3) procedures that the SP will use to meet the quality, quantity, timeliness, responsiveness, customer satisfaction, and other requirements of the solicitation; and results in timely corrective action throughout the life of the contract. This QCP shall be submitted to the KO with the proposal. The Government will perform final review and acceptance of the QCP and subsequent changes. Proposed changes to the QCP shall be submitted to the COTR not later than 10 working days prior to the proposed effective date of the change.

C.1.10. QUALITY ASSURANCE

The Government will monitor the SP's performance under this contract using the quality assurance procedures specified in the PRS (TE 1).

C.1.10.1. PERFORMANCE EVALUATION MEETINGS
The SP Project Manager shall meet with the COTR at least once weekly during the first 30 calendar days of the contract to discuss the SP's performance. Thereafter, the COTR will schedule meetings as determined necessary but not less than once during each quarter of performance under this contract. The Government will schedule meetings, but the SP may also request that a meeting be scheduled.

C.1.10.2. PERFORMANCE EVALUATION MEETINGS RESPONSE
Within 3 working days after each meeting, the Government will prepare and

distribute to all attendees a signed report of that meeting. The SP shall annotate an area of non-concurrence and submit a written explanation of non-concurrences to the COTR not later than 3 working days after receipt of the report.

C.1.11. GOVERNMENT OBSERVATIONS

The SP shall provide access to Government owned facilities operated by the SP for observation or inspection by a Government agency or individual authorized access by the KO/COR. Government personnel will not interfere with SP performance.

C.1.12. INTERFACE WITH GOVERNMENT OPERATIONS

Performance of work by SP personnel under the terms of this contract shall not interfere with Government operational activities. Work that may affect operations shall be scheduled with the POC listed on the WO to ensure the installation's activities will not be compromised. This scheduling may require work outside of the normal business hours.

C.1.13. FRAUD, WASTE, AND ABUSE

The SP shall maintain conduct and discipline within the SP occupied work area. The SP personnel shall be encouraged to be alert to report to the KO/COR or his representative suspected occasions of fraud, waste, or abuse or other intentionally dishonest conduct against the Government. In accordance with the Inspector General Act, 5 U.S.C. App. 7, the identity of personnel who make complaints or provide information regarding alleged wrongdoing will be held confidential unless the individual gives their expressed permission for the disclosure of their name.

C.1.14. CONSERVATION OF UTILITIES

The SP personnel shall conserve utilities and shall operate under conditions that preclude waste of Government-furnished utilities.

C.1.15. ENVIRONMENTAL PROTECTION

The SP shall comply with all applicable federal, state, and local environmental laws, statutes, regulations, and policies. The SP is responsible for all criminal and civil fines for SP's actions, or failures to take action, involving environmental protection and the handling of hazardous material and hazardous waste. In the event that a regulatory agency assesses a monetary fine against the Government for violations caused solely by the inadequate performance of the SP through neglect or failure to adhere to established laws, rules or regulations, the SP shall be held culpable and liable for payment of that fine. The SP shall reimburse the Government for the amount of the fine, all remediation costs, and other costs (including penalties, interest, and associated assessments) incurred by the Government in resolving the SP's violation to the full satisfaction of the governing or regulatory agency.

C.1.16. INSPECTION BY REGULATORY AGENCIES

The SP shall notify the COTR immediately of an inspection visit, planned or actual, by an agent or agents of a Government regulatory agency. The COTR will issue instructions as to how to proceed in cooperating with the inspector. The SP shall submit a written report to the COTR, by close of business (COB) of the next working day following completion of the inspection/visit, to include the names, identification

numbers, agency of the inspectors and the reason for the visit. A copy of all reports received and samples collected, if provided, shall be included. A statement signed by the inspector validating their authenticity shall accompany samples.

C.1.17. DISCLOSURE OF INFORMATION

Neither the SP, nor SP personnel, shall divulge nor release data or information developed or obtained under performance of this PWS, except to authorize Government personnel with prior written approval of the KO/COR. The SP shall not use, disclose, or reproduce proprietary data that bears a restrictive legend, other than as specified in this PWS. Performance under this contract may require the SP to access data and information proprietary to a Government agency, proprietary to another Government SP, or of such a nature that its dissemination or use other than as specified in this PWS would be adverse to the interests of the Government or others.

Disclosure of information regarding operations and services of the activity to persons not entitled to receive it, or failure to safeguard classified information that may come to the SP (or persons under the SP's control) in connection with work under this PWS, may subject the SP, the SP's agent, or the SP's employees to criminal liability under Title 18, Sections 793 and 798 of the United States Code (U.S.C). Neither the SP nor the SP's employees shall disclose or cause to be disseminated, information concerning the operations of the activity which could result in, or increase the likelihood of, the possibility of a breach of the activity's security or could interrupt the continuity of its operation.

All inquiries, comments, or complaints arising from all matters observed, experienced, or learned as a result of, or in connection with the performance of this contract, the resolution of which may require the dissemination of official information, shall be directed to the COTR.

Inquiries received by the SP regarding work performed under this contract shall be referred to the COTR for evaluation under the Freedom of Information Act (FOIA) of 1975, Public Law (PL) 93-502, 5 U.S.C., Section 552. The determination of whether records will be released will remain with the Government. The SP shall search, duplicate and submit records upon request by the Government.

The SP shall not release information (including photographs, files, public announcements, statements, denials, or confirmations) on any part of this contract or any phase of any program hereunder without the prior written approval of the KO/COR. The SP shall not release information regarding individuals without prior authority of the KO/COR. All documentation showing individuals' names or other personal information shall be controlled and protected. The provisions of the Privacy Act of 1974, PL 93-579, 5 U.S.C., Section 552a, shall apply.

C.1.18. SMOKING

The SP shall comply with 40 CFR 101-20.105 and with guidelines established at each individual ERDC installation that establish uniform policies governing smoking.

Smoking is not allowed in Government facilities or within 50 feet of doorways. Smoking is permitted in designated shelters.

C.1.19. TRAINING

The SP shall be responsible for all training of SP personnel as part of the SP's overhead. These costs shall be included in administrative costs or composite wage rates.

C.1.20. EQUIPMENT WARRANTIES

The SP shall exercise all manufacturers' commercial warranties on Government equipment.

C.1.21. FILES

The SP shall maintain complete and accurate files of documentation, records, and reports required under the terms of this contract in accordance with AR 25-1, Army Knowledge Management and Information Technology Management; and requirements listed in paragraph C.1.6.12., Records and Reports. The SP shall not allow access to the files by a Government agency, non-Government entity, or individual unless specifically authorized by the KO or COR. Files shall be made available to the COTR or a designated representative upon request. All files will become the property of the Government and shall be turned over to the KO/COR at the completion or termination of this contract. The SP shall box records, files, documents, and work papers; label the boxes according to their contents; and provide a master list of boxes and their contents.

C.1.22. GOVERNMENT PROVIDED WORKLOAD DATA

It is anticipated that during the course of this contract there will be workload increases and decreases. The projected workload information displayed in the text is based on annual historical data, where available, or extrapolated to represent estimated annual workload where less than 1 year's data were available. Summary workload data is included in the referenced TE 2. This workload is provided to assist offerors in proposal preparation. The workload data shall not be a limiting factor on the SP's obligation to perform all services described in this PWS to the required level of effort. The workload included in this PWS is representative of the type and quantity of workload that the SP can expect to encounter during performance of this PWS, except where otherwise noted.

C.1.23. PHASE-IN PLAN

The SP shall provide a Phase-In Plan (PIP) with its proposal. During the phase-in period, the Government will perform the PWS requirements. Performance of the Phase-In requirements will start the date the SP is notified to proceed. The PIP of the successful offeror will be incorporated into and become part of the contract awarded. The SP PIP shall:

A. List ALL tasks that the SP is committing to perform during the phase-in period:

1) Defining the requirements of each task
2) Identifying the resources to accomplish the task
3) Stating how the SP shall accomplish the task
4) Explaining how the SP shall coordinate each task with the COTR

B. Based on the GF Facilities and GF Property (TE 3) made available in this contract, list the office space and equipment requirements that the Government needs to furnish to effect and complete the PIP.

C. List actions the Government must take to facilitate the Phase-In, such as participation in joint inventories, providing access to facilities, and assisting SP in security registration of key personnel.

D. The SP shall identify the workforce that will be in place at the end of the phase-in period .

E. Identify steps the SP shall take to minimize disruption of the work and the workforce.

F. In addition to all tasks identified by the SP, 2 areas that shall be addressed in the PIP in greater detail are as follows:

1) Recruiting and hiring personnel to fill vacancies:

a) Provide how the SP will comply with Federal Acquisition Regulation (FAR) 52.207-3, “Right of First Refusal of Employment” (ROFR).

b) Identify the assumptions made by the SP in planning for the number of vacancies to be filled through current workforce versus through the area labor market, and set forth the contingency plans that will take effect if those assumptions are overstated.

c) Provide the process that will be used to interview and make offers to Government and non-Government personnel to include timing of offers, length of time offers will remain open, contingencies, and anticipated employment start dates.

d) Identify what critical skill positions and transactional systems knowledge are needed to start and maintain performance and what contingency plans exist for immediately replacing the loss of these abilities.

e) Provide a contingency for immediately replacing ROFR personnel that are lost to the Government’s priority placement program,

especially during the final days of the phase-in period and during the first 6 months of performance.

2) Developing a workforce (management and labor) that has the requisite knowledge, training, skills, abilities, and applicable certifications to perform the work:

a) Explain how the SP shall train and develop a workforce that is conversant in all functional aspects of USACE DPW. Although not every SP employee must be conversant in all aspects of USACE DPW, the SP workforce, as a whole, shall have operational knowledge in all functional areas of USACE DPW.

b) Explain how the SP shall familiarize the workforce with the USACE DPW's workflow, scheduling, and the actual workload requirements.

G. At the start of the phase-in period, the Government will provide the office space, (including telephone and Local Area Network [LAN] access), and property identified in the PIP. Office space and property provided during the phase-in period might not be the permanent office space and property assigned to the SP during performance of the contract.

H. In accordance with FAR 52.207-3(b), the KO/COR will provide the SP a list of adversely affected or separated personnel. This list will be provided at the start of the phase-in period. After this list is provided to the SP, the Government will cooperate with the SP to make these personnel available for interviews and training. However, this availability may be limited due to the Government's continuing responsibility for maintaining USACE DPW operations during the phase-in period. The Government will make every effort to facilitate hiring of Government personnel by the SP in support of the SP's PIP.

C.2. DEFINITIONS AND ACRONYMS

C.2.1. STANDARD DEFINITIONS

The definitions set forth below are those unique to this PWS. Definitions for technical terms or words that are included in this PWS can be found in the technical documents referenced in the individual functional areas of the PWS. In addition to the list of general definitions that apply to all services, additional definitions are provided for most services. In many cases definitions are situation specific. The total listing of definitions is not all-inclusive, but it has been derived from official publications, e.g., regulations, technical manuals, when available.

Agency Cost Estimate: The part of the agency tender in a standard competition that includes the agency's cost proposal and represents the full cost of agency performance of the commercial activity, based on the requirements in the solicitation and the costing policy in Attachment C of the Circular. The agency cost estimate for a streamlined competition is developed in accordance with Attachments B and C of the Circular.

Acceptable Level of Performance (ALP): Maximum percent defective (or maximum number of defects per hundred units) that can be considered as a satisfactory performance average. The Government will normally accept the services provided the percent defective (or defects per 100 units) does not exceed the ALP. However, the SP shall not intentionally perform in a defective manner and shall re-perform services found to be defective whenever possible. The KO/COR shall make decisions as to the necessity for re-performance.

Acceptable Quality Level: The maximum percent defective, the maximum number of defects per hundred units, or the number of defects in the lot that can be considered satisfactory on the average, or degree of deviation from perfect performance for such specific contract requirement before the Government will consider contract performance unacceptable. As long as the defective performance does not exceed the AQL, the Government will not reject the services. However, performance at an AQL does not imply that the SP may knowingly perform in an unsatisfactory manner.

Accountability: Accountability is the obligation to keep accurate and complete records of property, documents, or funds. Important data elements may include, but are not limited to, identification data, gains, losses, due-ins, due-outs, and balances on hand or in use.

Accountable/Non-Expendable Personal Property: Personal property with a normal life expectancy exceeding 1 year that is used continuously as a self-contained unit and neither loses its identity nor is destroyed when put into use.

Accurate: Precise and factual information. The term applies to information maintained in databases, entered on forms, recorded in other mediums of communication for official purposes, and to the information provided directly to

customers.

Adversely Affected Employee: Federal civilian employees serving competitive or excepted service appointments in Tenure Groups I, II, or III, who are identified for release from their competitive level by an agency, in accordance with 5 CFR Part 351 and 5 U.S.C. Chapter 35, as a direct result of a performance decision resulting from a streamlined or standard competition.

Alien: Any person not a citizen or national of the United States of America.

Annually: Each year, whether calendar year or fiscal year.

As Directed, As Required, As Permitted, Approved, Acceptance: Where these words or words of similar import are used, it shall be understood that the direction, requirements, permission, approval, or acceptance of the Contracting Officer is intended unless stated otherwise.

As Shown: Where these words or words of similar import are used, it shall be understood that reference is made to the drawings, tables, or narrative comprising this PWS, unless stated otherwise.

Calendar Day: The time from 12:00 A.M. (midnight) of 1 day to 12:00 A.M. (midnight) of the next day.

Certification: The state of being certified. One who has received a certificate or license stating he or she has met the minimum requirements for performing the services required in this Contract in accordance with the State of issue.

Check: To inspect or test the performance, condition, or safety of something.

COMPARE: The windows-based A-76 costing software that incorporates the costing procedures of this circular. Agencies must use COMPARE to calculate and document the costs on the Streamlined Competition Form (SLCF) for a streamlined competition or the Standard Competition Form (SCF) for a standard competition. The software is available through the SHARE A-76! Web site at: http://emissary.acq.osd.mil/inst/share.nsf/.

Competitive Sourcing Defect: Any failure of a unit of product or service to conform with specified requirements.

Composite Labor Rate: The composite labor rate for each job category shall consist of direct wages, health and welfare benefits, FICA, FUTA, and other fringe benefits as listed in the applicable wage determination/decision. It shall also include operational and material overhead, profit and all costs associated with the SP's use of government furnished property and equipment.

Contingency Plan: A document describing actions to be implemented or taken in the event of future occurrences.

Contract: A mutually binding legal relationship obligating the seller to furnish the supplies or services (including construction) and the buyer to pay for them. It includes all types of commitments that obligate the Government to an expenditure of appropriated funds and that, except as otherwise authorized, are in writing. In addition to bilateral instructions, contracts include, but are not limited to, awards and notices of awards; job orders or task letters issued under basic ordering agreements; letter contracts; orders, such as purchase orders, under which the contract becomes effective by written acceptance or performance; and bilateral contract modifications (See FAR 2.101).

Contract Award: The time at which the Contracting Officer signs the contract.

Contract Discrepancy: A failure of the SP to perform in accordance with contract requirements and specifications. A contract discrepancy may result from a failure of the SP to provide, or provide on time, the required contract products or services; or it may result because delivered products or services do not meet specific contract standards.

Contract Discrepancy Report (CDR): A report used to document unsatisfactory SP performance. The CDR requires the SP to explain, in writing, why performance is unsatisfactory; how performance shall be returned to satisfactory levels; and how recurrence of the problem shall be prevented in the future.

Contract End Date: The calendar date identified in the contract at which the SP is to end service and finish work performance. The contract expiration date begins at 12:00 midnight on the day preceding the resultant contract expiration.

Contract Line Item Number: Specific line item tasks listed in the contract.

Contracting Office: The office that is responsible for awarding, executing, and administering a contract for supplies or services and performing post-award functions.

Contracting Officer: A person with the authority to enter into, administer, modify, or terminate contracts, and make related determinations and findings. The term includes certain authorized representatives of the KO acting within the limits of their authority as delegated by the KO. An inherently governmental agency official who participates on the PWS team, and is responsible for the issuance of the solicitation and the source selection evaluation methodology. The KO awards the contract and issues the MEO letter of obligation or fee-for-service agreement resulting from a streamlined or standard competition. The KO and the SSA may be the same individual.

Contracting Officer's Technical Representative: An individual designated in

writing by the Contracting Officer to act as an authorized representative of the Contracting Officer to perform specific contract administrative functions within the scope and limitations as defined by the Contracting Officer. The COTR does not have the authority to modify the contract.

Service Provider Acquired Property (SPAP): Property acquired or otherwise provided by the SP for performing a contract and to which the Government has or is given title.

Service Provider-Furnished Property (SPFP): That property which the SP is required to furnish in order to perform the requirements of the contract.

Controlled Inventory Items: Items with characteristics requiring special identification accounting, security, or handling to ensure their safeguard. These items, in order of degree of control normally exercised, are as follows:

A. **Classified Material.** Material requiring protection in the interest of national security.

B. **Sensitive Items.** Materiel requiring a high degree of protection and control because of statutory requirements; items of high value, highly technical, or hazardous; and small arms, ammunition, explosives, and demolition materiel.

C. **Pilferable Items.** Materiel having ready resale value or civilian application to personal possession and, therefore, especially subject to theft (e.g., binoculars, projectors, pagers, cameras).

Coordinate: To communicate with others, both internally and externally, to accomplish a required task.

Correct: In accordance with the governing publication. The term applies to the manner in which actions are completed and to information provided directly to customers.

Corrective Action: Consists of those efforts required to correct deficiencies, determine that other products are not similarly defective; and ensure deficiencies do not re-occur.

Current: Information obtained from the most recent Government authoritative document.

Customer: Any person or organization that pays for the services described in this PWS.

Customer Service: Services provided directly to individual customers in response to problems and requests for information and assistance presented by individual

customers to the SP.

Damage: Ineffective technical assistance that is not readily noticeable at the time of delivery of the technical service.

Documentation: Providing a record of an event or transaction (e.g. written, computerized or video recorded) for retrieval at a later date.

Drug Free Workplace: The Site(s) for the performance of work done by the SP in connection with a specific contract where employees of the SP are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

Emergency: The reporting of sudden, urgent, usually unforeseen occurrences where life or property are in immediate danger and requires immediate action.

Environmental Protection: Formalized responsibilities, policies, and procedures established to preserve, protect, and restore the quality of navigable waters; near-shore, open, and any other surface waters; ground water; drinking water; land surface or subsurface area; and ambient air.

Expendable Personal Property: Personal property that has a normal life expectancy of less than 1 year and that is consumed in the normal course of its use. For purposes of this initiative, ancillary Automatic Data Processing Equipment (ADPE) with a cost of less than $100, such as keyboards and mice, are considered expendable. Ancillary ADPE items with an original acquisition cost of more than $100 shall be considered to be non-expendable personal property.

Facilities: When used in other than a Facilities Contract, means property used for production, maintenance, research, development, or testing. It includes plant equipment and real property. It does not include material, special test equipment, special tooling, or agency peculiar property.

Fair Wear and Tear: The loss or impairment of the appearance, effectiveness, worth, or utility of an item that has occurred solely because of the normal and customary use of the item for its intended purpose.

Federal Acquisition Regulation: A Federal regulation establishing uniform policies for acquisition by executive agencies.

Federal Holidays: The following days in each calendar year are identified as Federal holidays:

New Year's Day, January 1 (see note)
Martin Luther King's Birthday, the 3rd Monday in January
President's Day, the 3rd Monday in February
Memorial Day, the last Monday in May

Independence Day, July 4 (see note)
Labor Day, the 1st Monday in September
Columbus Day, the 2nd Monday in October
Veteran's Day, November 11 (see note)
Thanksgiving Day, the 4th Thursday in November
Christmas Day, December 25 (see note)

Note: When holidays occur on a Saturday, Federal employees are normally given the previous Friday off from work. When holidays occur on a Sunday, Federal employees are normally given the following Monday off from work. This situation may impact on seven-day work week operations.

Fiscal Year (FY): The Government fiscal year begins every October 1st and ends the following September 30th. The fiscal year is designated by the calendar year in which it ends. For example, Fiscal Year 2006, abbreviated FY06, begins October 1, 2005 and ends September 30, 2006.

Full-Time Equivalent (FTE): The staffing of Federal civilian employee positions, expressed in terms of annual available work hours (1,776) rather than annual assigned hours that includes non-available hours (2,080 hours). FTEs may reflect civilian positions that are not necessarily staffed at the time of public announcement and staffing of FTE positions may fluctuate during a streamlined or standard competition. The staffing and threshold FTE requirements stated in this PWS reflect the workload performed by these FTE positions, not the workload performed by actual government personnel. FTEs do not include military personnel, uniformed services, or contract support.

Governing Publications: The complete range of Governmental guiding documents required to manage and perform functional work. Examples are public laws, regulations, pamphlets, circulars, messages, and memoranda.

Government: The term Government as used herein includes the Contracting Officer, the COTR and other designated representatives.

Government Publications: Publications adopted or published by the agencies of the United States Government.

Government Representative: The Contracting Officer, Contracting Officer's Representative, Contracting Officer's Technical Representative, and Property Administrator, or as appointed by the Contracting Officer.

Government Training: Training deemed necessary for performance of a Government contract that is available only through Government schools, seminars, or conferences.

Government-Furnished Property (GFP): A term used in this Contract to mean all

equipment, materials, supplies, facilities, property and land in the possession of, or directly acquired by, the Government and subsequently made available to the SP for use in performing this requirement.

Government-Owned Property: A term used in this contract to mean property owned by or leased to the Government or acquired under the terms of the contract, and subsequently delivered to the SP for use by supported customers or on equipment of supported customers.

Hazardous Material (HAZMAT): When referred to in requirements throughout this PWS, HAZMAT includes hazardous waste (HAZWASTE). In general, HAZMAT is any material that because of its quantity, concentration, or physical, chemical, or infectious characteristics, may pose a substantial hazard to human health or the environment. This definition includes all extremely hazardous substances, hazardous chemicals, hazardous substances, and toxic chemicals. HAZMAT is any material regulated as HAZMAT, per reference 40 CFR Part 261, or any material that requires a MSDS, per reference 40 CFR Part 261. HAZMAT is also any material having components which meet or have potential to meet the definition of hazardous waste per reference 40 CFR Part 261, during any phase of its existence: end use, treatment, handling, packaging, storage, transportation, or disposal. Designation of a material as HAZMAT does not eliminate the need for adherence to hazard-specific guidance that, for control purposes, takes precedence over this instruction when a material is separately regulated or controlled by other instructions or directives. In general, such materials include propellants, pyrotechnics, medical and pharmaceutical materials, medical waste and infectious materials, bulk fuels, radioactive materials, and other materials such as asbestos and mercury. These materials are HAZMAT to the extent that exposure of personnel may occur during manufacture, storage, use, and disposal of these items.

Hazardous Waste: A solid waste, or combination of solid wastes, that because of quantity, concentration, or physical, chemical or infectious characteristics may: (a) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or (b) pose a substantial actual or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

His: The word “his”, as used in this Contract, is intended to mean his or her in a generic sense. It is not intended to denote gender.
Immediately: Without delay or time intervening.

Input: Information transferred into the internal storage of a data processing system, representing data to be processed for information to help control the process.

Inspect: Determination and identification of the condition, defects, or malfunctions of equipment, facilities, and systems with reference to established standards.

Instruct: To teach, inform, order, or direct.

Inter-Service Support Agreement (ISA): A document wherein the participants, to preclude any misunderstanding, state clearly in writing, the agreement for the provision of support arrived at between the activities involved, especially the obligations assumed by each and the rights granted to each. An agreement used for coordinating and providing support to component units, activities, and individuals located outside real property boundaries.

Internet: A network connecting other networks, a large network of this type that covers the United States and extends to Canada, Europe and Asia, providing connectivity to databases at Governments, Universities, Corporate networks and hosts.

Invalid: Not having legal force, evidence or sound reasoning.

Inventory: When used as a verb, to inventory is to sight, tag or mark, describe, record and report the property involved, for the purpose of reconciling the inventory results with the property records.

Liquidated Damages: Liquidated Damages are a provision providing for payment if an SP fails to deliver or perform the services specified in the contract.

Lot Size: The total number of product or service outputs in a lot.

Lot: A collection of product or service outputs from which a sample is to be drawn and inspected to determine conformance with the standard made available to the SP for performance under the contract.

Mandatory Document: A directive in which the SP is obliged to perform the effort strictly in accordance with the method specified in the directive to meet the stated results of the directive.

Maintenance: The recurring day-to-day, or periodic, work to repair or maintain equipment, and systems in a specified condition, or to restore systems or components to initial or usable condition by overcoming the effects of breakdowns, wear and tear, damage or deterioration. Maintenance includes preventive care, normal repairs, replacement of parts and structural components, and other activities needed to preserve the asset so that it continues to provide acceptable services and achieves its expected life.

Material: Property that may be incorporated into or attached to an end item that may be consumed or expended in performance of work. It includes, but is not limited to, clothing, raw and processed material parts, components, and installed equipment, and assemblies. The term includes small tools and supplies that may be consumed in normal use in performance of work.

May: Is permissive. However, the words “no person may” mean that no person is required, authorized, or permitted to do the act described.

Non-Standard Item: Look alike items that are procured locally through commercial source.

Offer: A response to a solicitation that, if accepted, would bind the offeror to perform the resultant contract. Responses to invitations for bids (sealed bidding) are offers called “bids” or “sealed bids;” responses to requests for proposals (negotiation) are offers called “proposals;” responses to requests for quotations (negotiation) are not offers and are called “quotes.” (See FAR 2.101.)

On-Call Hours: 24 hours a day, 7 days a week, including all Federal Holidays.

On-Site: Repairs or services performed at a customer’s location.

Operating day: Monday through Friday, excluding Federal Holidays.

Operating hours: Those routine hours designated by the USACE DPW Operations Division as standard hours of operation.

Organizational Chart: Diagram showing the organization of units, offices, or activities and their relationship and responsibilities.

Performance Indicator: A characteristic of a work output that can be measured.

Performance Requirements Summary: Identifies the key product or service outputs of the contract that will be evaluated by the Government to assure contract performance of the SP meets established standards. (Other products or services may also be inspected under the authority of the Inspection of Services clause.) The PRS shows representative contract requirements, the component requirements related to each contract requirement, the price of each work requirement as a percentage of the associated contract requirement, the standard of performance, and the acceptable level of performance (ALP) for each work requirement.

Performance Work Statement: A statement in the solicitation that identifies the technical, functional, and performance characteristics of the agency’s requirements. The PWS is performance-based and describes the agency’s needs (the “what”), not specific methods for meeting those needs (the “how”). The PWS identifies essential outcomes to be achieved, specifies the agency’s required performance standards, and specifies the location, units, quality and timeliness of the work.

Personal Property: Anything tangible that is not real property other than records of the Federal Government, and naval vessels of the following categories: battleships, cruisers, aircraft carriers, destroyers, and submarines (FMR §102.36.40).

Personal Property Management: Personal Property Management is the planned acquisition, efficient use, physical accounting, and appropriate disposition of personal property.

Phase-In: The actions taken by a SP preceding a resultant contract start work date. Phase-In includes actions taken during the contract phase-in period and actions during the Phase-Out period.

Phase-in Period: The period specified in the Contract for preparation and phasing-in to the new full SP performance on Contract start date.

Phase-out Period: The period specified in the Contract for preparation and phasing-in to the end of SP performance on the Contract expiration date.

Pilferable Items: See Controlled Inventory Items.

Policy: A rule that governs the manner of performance.

Privately Owned Vehicle (POV): A vehicle owned by a person or business and not the Government.

Procedure: The step-by-step method or way that the policy or plan is to be carried out.

Process: A series of actions or operations that achieve an end or result.

Property: Means all property, both real and personal. It includes facilities, materials, special tooling, special test equipment, and agency-peculiar property.

Property Custodian: An individual, provided by the SP, designated in writing and located at the activity site that has physical custody and control over personal property

Property Responsibility: Property responsibility arises from possession of property or from the obligation of command or supervision of others who are in possession of property.

Provide: As related to a specified SP responsibility, this word means that the SP shall furnish and install the item or furnish the service.

Qualified Person: One having adequate knowledge, and thoroughly conversant in the installation, construction or operation of apparatus or equipment and hazards involved. One who possesses knowledge, skill, and ability to competently, effectively, and safely accomplish a task.

Quality: The composite of attributes or characteristics, including performance of an item or product.

Quality Assurance: Those actions taken by the Government to assure that the quality of purchased products and services received are acceptable in accordance with established standards and requirements of the contract.

Quality Assurance Surveillance Plan (QASP): A written document used by the Government for implementing the inspection and acceptance of SP performance. The document contains specific methods to be used by the Government to evaluate satisfactory performance.

Quality Control: SP's system to control the equipment, systems or services so that they meet the requirements of the contract.

Quality Management: A planned and systematic pattern of actions necessary to provide confidence that material, data, supplies, services, and products conform to established technical requirements and achieve satisfactory performance.

Random Sample: The result of a sampling method whereby each product or service output in a lot has an equal chance of being selected.

Random Sampling: Random Sampling is a statistical method for looking at a few representative individual items in a lot to measure the quality of that lot against a standard.

Real Property: Means land, and rights in land, ground equipment improvement, utility distribution systems, buildings and other structures. It does not include foundations and other work necessary for installing special tooling, special equipment, or plant equipment.

Recurring Work Program (RWP): Recurring Work Program is an automated system of scheduled maintenance to maximize equipment lifetime and prevent breakdowns.

Recyclable Material: Waste material that can be transformed into new products in such a manner that the original product may have lost its identity.

Recycling: The process by which recoverable materials are transformed into new or usable products.

Reject: A unit of product that is determined by quality control inspection to be unacceptable for its intended use. Service that is not accepted by the customer or Government and that payment may be withheld or for which services may be required to be re-performed.

Repairs and Maintenance Expense: Any costs incurred to an asset that do not

significantly improve the quality or quantity of outputs of the original asset or that fail to significantly increase the economic life of the original asset. These costs, regardless of the dollar amount, should be recognized as repairs and maintenance expenses (i.e., not added to the depreciable basis of the original asset, nor capitalized separately).

Reports and Deliverables (RD): Required data submitted by the SP to the Government. A proper and correct submission of a RD is evidenced by the following criteria: completeness, accuracy of data, preparation in accordance with applicable mandatory publication or other prescribing document, signature or initials by the certifying official or area supervisor, and correct and timely turn-in or distribution.

Responsible Individual: A person entrusted with possession of or supervision over Government property.

Responsibility: The obligation of an individual to ensure Government property and funds entrusted to his or her possession, command, or supervision are properly used and cared for and that proper custody and safekeeping are provided.

Salvage: An item of personal property that has parts that are usable or which can be recycled. The item as a whole is in such poor shape that its repair is not practical, but its total destruction is not warranted.

Sample Size: Sample Size is the number of outputs in the sample: a group of one or more outputs drawn from the specified performance.

Sample: A sample consists of one or more service outputs drawn from a lot in accordance with random sampling procedures.

Service Provider: The Service Provider, its subsidiaries and affiliates, joint ventures involving the SP, or any entity with which the SP may have merged or any individual or entity that assisted or advised the SP in the preparation of a proposal under this solicitation.

Service Provider Acquired Property (CAP): Property acquired or otherwise provided by the SP for performing a contract and to which the Government has or is given title.

Service Provider-Furnished Property (CFP): That property which the SP is required to furnish in order to perform the requirements of the contract.

Service Provider Identified Work (SP Identified Work): Recommended repairs discovered by the SP while performing maintenance or operational tasks.

Shall: Denotes the imperative.

Standard Operating Procedure (SOP):

A. External SOP. Standardized set of procedures, developed by the Government, which must be adhered to by Government organizations and units to ensure compliance with regulatory requirements and the PWS. The SP utilizes these SOPs for information and awareness of customer responsibilities.

B. Internal SOP. Standardized set of procedures, developed by the SP, which provide details on how work is to be accomplished by SP's employees. The SP's internal SOPs are utilized by the Government for information and contractual compliance purposes.

Suspense Date: The date established by the originator of a document or requirement by which completed action or a reply is expected.

Technical Bulletins (TB): Publications containing information, procedures, and techniques of a technical or professional nature relating to equipment and general subjects.

Test: Procedure of obtaining, examining, analyzing and evaluating data to determine conditions or verify performance capability.

Transmission: To pass or transfer from one place to another.

Troubleshoot: To act or be employed in resolving, diagnosing, discovering, and eliminating trouble in any flow of work or equipment.

Upgrades: Upgrades are additions to, or replacement parts within, an existing piece of equipment. These will improve or add to its functioning over and above its capability as originally configured. Alternatively or as an additional consequence, the function or the useful life of the original unit is extended.

Validated Complaint: A validated complaint is one in which the COTR has verified that the facts of the complaint are correct. Otherwise, if there is no merit to the complaint, it is just an allegation.

Vendor: One person or entity that offers services or goods for money.

Will: The word "Will", when used in connection with a Government action, is used to express a declaration of purpose on the part of the Government.

Work Hours: Those hours that occur within the normal duty day as defined for each installation.

Work Order (WO): A document authorizing the completion of a specific task.

Working Days: The time from 12:00 A.M. (midnight) of 1 day to 12:00 A.M. (midnight) of the next day, when the day is Monday through Friday, excluding holidays.

C.2.2. ACRONYMS/ABBREVIATIONS

ACI	American Concrete Institute
ACM	Asbestos Containing Material
ADPE	Automated Data Processing Equipment
ALP	Acceptable Level of Performance
ANSI	American National Standards Institute
AQL	Acceptable Quality Level
ASHRAE	American Society of Heating, Refrigeration, and Air Conditioning
ASME	American Society of Mechanical Engineers
AWWA	American Water Works Associations
CA	Commercial Activity
CAC	Common Access Card
CDR	Contract Discrepancy Report
CDRL	Contract Data Requirements List
CFR	Code of Federal Regulations
CPVC	Chlorinated Polyvinyl Chloride
CO_2	Carbon Dioxide
COOP	Continuity of Operations Plan
COR	Contracting Officer's Representative
COTR	Contracting Officer's Technical Representative
CRREL	Cold Regions Research and Engineering Laboratory
CS	Competitive Sourcing
CTS	Copper Tubing Size
DDC	Direct Digital Control
DoD	Department of Defense
DOL	Department of Labor
DPW	Directorate of Public Works
DX	Direct Expansion
EMT	Electrical Metal Tubing
ENT	Electrical Non-Metallic Tubing
EPA	Environmental Protection Agency
ERB	Engineering Resources Branch
ERDC	Engineering Research and Development Center
ERP	Emergency Response Plan
ERT	Emergency Response Team
FAR	Federal Acquisition Regulation
FAIR	Federal Activities Inventory Reform
FERF	Frost Effects Research Facility
FICA	Federal Insurance Contribution Act
FOIA	Freedom of Information Act
FTE	Full Time Equivalent

FUTA	Federal Unemployment Tax Act
FY	Fiscal Year
GFP	Government-Furnished Property
GFS	Government-Furnished Software
GFI	Government-Furnished Information
gpm	Gallons Per Minute
GSA	General Services Administration
HAZCOM	Hazardous Communication
HAZMAT	Hazardous Material
HAZWASTE	Hazardous Waste
HP	Horse Power
HVAC&R	Heating, Ventilation, Air Conditioning, and Refrigeration
IBC	International Building Code
ICC	International Code Council
IEF	Ice Engineering Facility
IPS	Iron Pipe Size
ISA	Inter-Service Support Agreement
ITG	Interactive Technologies Group
$KMnO_4$	Potassium Permanganate
KO	Contracting Officer
KWH	Kilowatt Hours
LAN	Local Area Network
LP	Liquid Petroleum
MDEQ	Mississippi Department of Environmental Quality
MEF	Material Evacuation Facility
MSDS	Material Safety Data Sheets
MWO	Maintenance Work Order
NEC	National Electric Code
NPDES	National Pollutant Discharge Elimination System
ODR	Observed Defective Rate
OMB	Office of Management and Budget
OSHA	Occupation Safety and Health Administration
PCB	Polychlorinated Biphenyls
pH	Potential Hydrogen
PIP	Phase-In Plan
PL	Public Law
PLC	Programmable Logic Controllers
POC	Point of Contact
POV	Privately Owned Vehicle
ppb	Parts Per Billion
PPE	Personal Protective Equipment
PRS	Performance Requirements Summary
psi	Pounds Per Square Inch
PSM	Process Safety Management
PSP	Physical Security Plan
PVC	Polyvinyl Chloride

PWS	Performance Work Statement
QC	Quality Control
QASP	Quality Assurance Surveillance Plan
QCP	Quality Control Plan
RACM	Regulated Asbestos Containing Material
RCRA	Resource Conservation and Recovery Act
RD	Reports and Deliverables
R&D	Research and Development
RO	Reverse Osmosis
ROFR	Right of First Refusal
SCADA	Supervisory Control and Data Acquisition
SCF	Standard Competition Form
SGC	Standard Gas Code
SMC	Standard Mechanical Code
SPC	Standard Plumbing Code
SLCF	Streamlined Competition Form
SOP	Standard Operating Procedure
SP	Service Provider
SPAP	Service Provider Acquired Property
SPC	Standard Piping Code
SPFP	Service Provider Furnished Property
SSA	Source Selection Authority
SSEB	Source Selection Evaluation Board
SSPO	Strategic Sourcing Program Office
TB	Technical Bulletin
TCE	Trichlororoethylene
TE	Technical Exhibit
UL	Underwriter’s Laboratory
USACE	United States Army Corps of Engineers
U.S.C.	Unites States Code
VAV	Variable Air Volume
WES	Waterways Experiment Station
WO	Work Order

C.3. GOVERNMENT-FURNISHED PROPERTY, FACILITIES, AND SERVICES

C.3.1. GENERAL INFORMATION

The Government will provide, without cost to the SP, the property, facilities, and services listed below, or in Section C.5. Specific Tasks, and the TEs. Items listed in these documents shall be used at the installation and only for performance of the contract. For ease of reference, the following table summarizes the content in this section. The SP shall refer to the specific paragraphs and the TEs for further detail.

Table C.3-1: Property, Facilities, and Services

Paragraph	TE #	Item Type Addressed	**Replace**	**Maintain**
C.3.2	3	Government-Furnished Facilities	Government	Government
C.3.3	3	Government-Furnished Accountable Property	Government	SP
C.3.4	3	Government-Furnished Non-Accountable Property	SP	SP
C.3.5	3	Government-Furnished Computer Hardware and Software	Government	Government
C.3.9	In C.6.	Forms and Publications	SP	N/A

C.3.2. GOVERNMENT-FURNISHED FACILITIES

The Government will furnish or make available facilities and space for the performance of this PWS. These facilities shall only be used for performance of this PWS. The Government will provide maintenance and repair of real property for GF Facilities and the SP shall return the facilities to the Government in the same condition as received, except for normal wear and tear. Installation layout maps are available at the DPW Engineering Division Offices in Vicksburg and Hanover. The Government will provide the SP with the furnishings listed in TE 3.

C.3.2.1. COMPLIANCE TO OSHA AND USACE SAFETY STANDARDS

Government facilities have been inspected for compliance with USACE safety standards. No hazards have been identified for which work-arounds have been established. Should a hazard be subsequently identified, the Government will correct the hazard according to the Government developed and approved plans. Corrective action taken by Government will be based on established safety and health priorities. A higher priority for correction will not be assigned to the facilities provided hereunder merely because of this contracting initiative. The fact that no such conditions have been identified does not warrant or guarantee that no possible hazard exists, that work-around procedures will not be necessary, or that the facilities as furnished will be adequate to meet the responsibilities of the SP. Compliance with OSHA and other applicable laws and regulations for the protection of employees is exclusively the obligation of the SP. The Government will assume no liability or responsibility for the SP's compliance with such

responsibilities, with the exception of the aforementioned responsibility to make corrections according to approved plans, subject to USACE DPW priorities.

C.3.2.2. MODIFICATIONS

Prior to modification of the facilities by the SP, the SP must furnish the KO/COR documentation describing, in detail, the modification requested. Such modifications will be at the SP's expense. No alterations to the facilities shall be made without specific written permission from the KO/COR; however, in the case of alterations necessary for OSHA compliance, such permission will not be unreasonably withheld.

C.3.3. GOVERNMENT–FURNISHED ACCOUNTABLE PROPERTY

The Government will provide to the SP the accountable property (equipment, ADPE, and vehicles) listed in TE 3. This property shall be used for the performance of the contract. The SP shall furnish other property required in the performance of this PWS.

C.3.3.1. INVENTORY

The SP shall designate property custodians and alternates to receive and account for GF Accountable Property. The SP shall conduct inventories at their own expense. An inventory of GF Accountable Property shall be done:

A. 40 calendar days after the start of the phase-in period, the SP and the COTR shall conduct a joint inventory.

B. Not later than 60 calendar days before completion of the contract period. The SP and the COTR shall conduct a joint inventory of all GF Accountable Property listed in TE 3 and shall jointly determine the working order and condition of all equipment. A written record of missing equipment or equipment not in working order shall be provided to the KO/COR. Following the joint inventory, the KO/COR will make the determination as to who shall replace missing items and repair items not in working order. The COTR will give disposition instructions for items beyond repair. The SP and the COTR shall certify their agreement as to the working order of the equipment in the inventory. If the SP does not participate in the inventory, the SP must accept as accurate the listing and stated condition of equipment provided by the Government. If the SP participates in the inventory, but does not agree with the COTR's determination as to the working order of the equipment, this disagreement shall be treated as a dispute pursuant to the clause of this solicitation entitled "Disputes."

C. Annually of all accountable and hand receipt items at a time to be determined by the Government.

C.3.3.2. PROPERTY ACCOUNTABILITY

The SP shall be liable for loss of or damage to, GF Accountable Property beyond fair wear and tear according to the "Government-Furnished Property" clause of the contract. Compensation will be accomplished by reduced amounts owed to the SP or by direct payment by the SP. The KO/COR will determine the method of compensation. All property in need of repairs or maintenance shall be the responsibility of the SP and shall be completed within 30 calendar days of discovery. All repairs and maintenance not performed by the SP will be done at the Government's option and at the SP's expense. In the case of damaged property, the amount of compensation due the Government by the SP shall be the actual cost of repair, provided such amount does not exceed the economical repair value (75 percent of the costs to replace the item). In the case of items lost or damaged beyond economical repair, the amount of the SP's liability shall be the depreciated replacement value of the item, to be determined by the KO/COR. A disagreement with such determination by the SP shall be treated as a dispute pursuant to the clause of this contract entitled "Disputes."

C.3.3.3. HIGH VALUE ITEMS

In case of loss or damage beyond economical repair to items where the Purchase Price Per Unit is $1,000 or more, as listed in TE 3, the amount of compensation that the SP owes the Government shall be calculated according to the following formula: C = (RV-AS) – (LE [{RV-ES}/EL]);

Where:

C = Compensation

RV = Property Record Value (shown as Purchase Price per Unit in each TE)

AS = Actual Salvage Value (determined at time of damage or loss)

LE = Life Elapsed. (Estimated Life less Remaining Life)

ES = Estimated Salvage Value. Using the Defense Property Disposal Office percentage-of-cost data if available or the best estimate from local market conditions obtaining the estimated salvage value. Estimated salvage value is necessary because it is used in determining Total Accrued Depreciation, shown as RV-ES.

EL = Estimated Life. Total estimated from new to planned salvage. (Note: Estimated life is not necessarily the same as depreciable life. Estimate the useful life of the property).

C.3.3.4. DISPOSITION OF PROPERTY

When Government property is determined to be beyond economical repair (as defined in paragraph C.3.3.2., Property Accountability), it shall be certified by the

COTR and reported to the KO/COR for disposition. Upon completion of the contract, all remaining Government property shall be reported to the KO/COR according to FAR 45.6, Reporting, Redistribution, and Disposal of Contractor Inventory.

C.3.3.5. OBTAINING REPLACEMENT OF GF ACCOUNTABLE PROPERTY
The SP shall submit requests for replacement of GF Accountable Property to the KO/COR. Such requests shall specify the reason for the replacement request.

C.3.3.6. OIL-FILLED ELECTRICAL DISTRIBUTION TRANSFORMERS
The Government will maintain a supply of oil-filled electrical distribution transformers to ensure ready availability for the SP. The SP shall notify the COTR in writing when a transformer is put in place or transferred out of operation within 1 day of the use or transfer.

C.3.3.7. AMMONIA RESPONSE EQUIPMENT
The Government shall make available to the SP the Ammonia Response Equipment listed in Appendix H of the Anhydrous Ammonia Emergency Response Plan, which is provided in TE 5.5-005, for use in the event the SP is required to respond to an ammonia leak at the Hanover site. The ownership of this equipment will remain with the Government and it must be available for use by other members of the Response Team who may not be employees of the SP.

C.3.4. GOVERNMENT FURNISHED NON-ACCOUNTABLE/EXPENDABLE PROPERTY

The Government will provide to the SP non-accountable/expendable property listed in TE 3. This property includes expendable tools, materials, and supplies.

C.3.4.1. EXPENDABLE HAND TOOLS
The SP shall replace lost, stolen, damaged, or normal wear and tear replacement tools with ones of equal quality and value. Expendable item replacement shall be at the SP's expense. At the end of the contract period, the SP shall return to the Government a like inventory of expendable hand tools.

C.3.4.2. EXPENDABLE MATERIALS AND SUPPLIES
The SP shall expend materials and supplies provided by the Government in the performance of this PWS prior to purchasing new materials and supplies for like items. Materials and supplies shall be managed with regard to waste, and damage.

C.3.5. GOVERNMENT-FURNISHED COMPUTER HARDWARE AND SOFTWARE

The Government will provide the computer hardware, application software, and documentation associated with the systems currently being used. The Government will provide operating system software. The system software is Government owned, as is the data that resides on the system. All rights to the software and all data files developed under this PWS will be returned to the Government. GF software shall be

managed in accordance with the provisions of AR 25-1, Army Knowledge Management and Information Technology Management.

C.3.6. EQUIPMENT MAINTENANCE

The SP shall perform preventive and minor maintenance on GF Accountable Property. Preventive and minor maintenance shall include cleaning, adjusting, maintaining fluid levels, tightening of nuts and bolts, refilling or replacing toner cartridges, and operator preventive maintenance. Documentation and submission of warranty claims to equipment suppliers shall be the responsibility of the SP.

C.3.7. GOVERNMENT-FURNISHED SERVICES

C.3.7.1. UTILITIES

The Government will furnish gas, electricity, water, sewage, and heating for facilities listed in TE 3.

C.3.7.2. VEHICLE FUEL AND FUELING

The government will provide fuel and on-site fueling at the Vicksburg site for the vehicles listed in Section C of TE 3-002, Section C of TE 3.003, and Section E of TE 3-004. The government will provide fuel only at the Hanover Site for the vehicles listed in Section D of TE 3-007.

C.3.7.3. POSTAL

The Government will provide on-site mail pickup and delivery for correspondence related to performance under the terms of this PWS. Government will determine the number and location of pickup and delivery points.

C.3.7.4. TELEPHONES AND TELEPHONE SERVICE

The Government will provide existing telephone service access to include unsecured voice, and dial up switched communication service for work performed under the terms of this PWS. The Government will not provide cell phones or pagers but will provide radios and LAN access. The number of phone lines provided is listed in TE 3. Telecommunications service, outside of official use, shall be at the SP's expense.

C.3.7.5. CUSTODIAL SERVICES

The Government will provide custodial services to the extent provided in the USACE DPW custodial-service contracts. A schedule of the services and areas serviced is available from the DPW Engineering Division Office at each site location.

C.3.7.6. REFUSE COLLECTION

The Government will provide refuse service to the extent provided in the USACE DPW refuse collection contracts. A schedule of the services and areas serviced is available from the DPW Engineering Division Office at each site location. The SP shall follow guidelines established by applicable regulations regarding the proper

use of dumpsters. The SP shall not dump prohibited items in dumpsters. Prohibited items include, but are not limited to, paint, hazardous waste, regulated medical waste, and liquids. The SP shall comply with all USACE DPW recycling programs.

C.3.7.7. FIRE PREVENTION AND PROTECTION
The Government will provide on-site fire prevention and protection, inspection and maintenance of GF systems. The Security Office will notify the fire department or emergency personnel of an emergency. The emergency telephone numbers of the Security Office at Vicksburg is 601-634-3333 and at Hanover is 603-646-4800.

C.3.7.8. INSECT AND RODENT CONTROL
The Government will provide insect and rodent control services to the extent provided in the USACE DPW pest service contracts. A schedule of the services and areas serviced is available from the DPW Engineering Division Office at each site location. All requests for additional service shall be coordinated with the COTR.

C.3.7.9. SECURITY
The Government will provide general on-site Security Police service at USACE DPW. The emergency telephone numbers of the Security Office at Vicksburg is 601-634-3333 and at Hanover is 603-646-4800.

C.3.8. PROPERTY CONTROL PROCEDURES

The SP shall establish a written property control system for the management of accountable and non-accountable property. This system shall be in accordance with FAR 52.245-2, the TEs, sound business practice, FAR Part 45, and AR 735-5, Polices and Procedures for Property Accountability. The property control system shall include a SP maintained record system of all inspections, maintenance, and repair actions for each piece of GF Accountable Property. The record system shall include the date of the action; the GF Accountable Property inspected, maintained, or repaired; and a description of the specific actions taken. The SP shall submit a written property control plan to the COTR for review and approval no later than 30 calendar days prior to the end of the phase-in period. Any changes to the procedures shall be submitted in writing to the COTR for approval within 10 working days of the effective date of the proposed change. The Government retains unrestricted access to all data.

C.3.9. FORMS AND PUBLICATIONS

The Government will initially provide the forms and publications listed in Section C.6., Applicable Publications and Forms that are expressly required to perform the work included in this PWS.

C.4. SP-FURNISHED PROPERTY AND SERVICES

C.4.1. GENERAL INFORMATION

Except for those items and services stated to be GF in Section C.3., Government Property, Facilities, and Services, the SP shall provide all property and services necessary to perform the requirements of this PWS. SP-furnished property shall meet the same safety requirements as those established for GFP. The SP shall provide personal protective equipment in accordance with OSHA requirements.

C.4.2. ACCOUNTABLE PROPERTY

Except as provided in FAR 52.245-11(c), the title to SP-furnished accountable property shall remain with the SP.

C.4.3. NON-ACCOUNTABLE/EXPENDABLE PROPERTY

The SP shall return to the Government all non-accountable/expendable property at the termination of this contract. This property includes all non-accountable/ expendable property provided by the Government or acquired by the SP. No inventory of the material returned to the Government will be taken. The SP shall furnish all non-accountable/expendable property necessary to perform the requirements of this contract.

C.4.4. SP-FURNISHED SERVICES

Except for GF Services (Section C.3.8.), the SP shall provide all services necessary to perform the requirements of this contract.

C.5. USACE DPW SPECIFIC TASKS

C.5.1. GROUNDS AND SURFACED AREA MAINTENANCE

C.5.1.1. INTRODUCTION

C.5.1.1.1. GROUNDS MAINTENANCE

The SP shall perform maintenance and repair of grounds, unimproved areas, associated structures and appurtenances. The SP shall perform trimming; erosion control; clean up of debris, drains, and ditches; and other services as required in this PWS to provide complete grounds maintenance. All work shall be performed by qualified personnel in accordance with applicable laws and regulations.

C.5.1.1.2. SURFACED AREA MAINTENANCE

The SP shall perform maintenance and repair of surfaced areas, including roadways, parking lots, trails, widened shoulders, gravel and earth surfaced areas, bridges, and associated structures and appurtenances. The SP shall ensure that work is performed by qualified personnel in accordance with applicable laws and regulations.

C.5.1.2. SCOPE OF SERVICES

Grounds areas covered under this PWS include all outdoor and paved areas at both locations.

C.5.1.3. SCHEDULED TASKS

The SP shall perform the tasks described below on a recurring or scheduled basis. MWOs will be issued each fiscal year for these tasks.

C.5.1.3.1. VICKSBURG GATES AND BARRIERS

The SP shall remove the debris from within 1 foot of the gate track on the 4 automatic gates at Gate #1 and #6 on a weekly basis. The SP shall remove the debris from the surfaced areas within 3 feet of the barrier and from inside the barrier base of the 10 hydraulic pop-up barriers at Gate #1, #6, and #8 on a monthly basis. A map showing the location of the Vicksburg gates and barriers is provided in TE 5.1-001.

C.5.1.3.2. HANOVER BARRIERS

The SP shall remove the debris from the surfaced areas within 3 feet of the barrier on the 4 hydraulic pop-up barriers located at the Gates #1 and #2 on a monthly basis. A map showing the location of the Hanover barriers is provided in TE 5.1-002.

C.5.1.4. UNSCHEDULED TASKS

The SP shall perform the tasks described below when initiated through a WO.

C.5.1.4.1. TREES

The SP shall remove fallen trees as directed by the COTR. The work shall include complete removal of trees and debris and filling of hole with topsoil. Logs, trees, debris, and woodchips shall be deposited in an area designated by the COTR.

C.5.1.4.2. GRASS PLANTING AND SODDING

The SP shall prepare a proper seed bed. The SP shall seed designated areas to ensure a full even lawn growth throughout seeded areas with no bare or uneven spots after 6 weeks of growth from the time of seeding. Bare spots exceeding ½ square foot will be sodded with the prevalent sod as directed by the COTR. In grounds areas where seed will not germinate, the SP shall sod to establish turf. The SP shall apply topsoil to new lawn areas at a depth of 4 inches. The SP shall spread topsoil to an even and level appearance in conjunction with contours specified for the area and shall fill holes and ruts in the area prior to being dressed with topsoil.

C.5.1.4.3. STORM DAMAGE

The SP shall remove all fallen trees, limbs, and debris deposited by water runoff or winds after periods of heavy wind or rainfall. The SP shall dispose of storm debris in areas designated by the COTR. Routine maintenance work shall be suspended during periods deemed necessary by the COTR for storm damage cleanup.

C.5.1.4.4. SPECIAL EVENTS

The SP shall provide support, as required, for special activities or events on the installation and other events deemed necessary by the COTR. Support shall include tasks such as planting, tree trimming, debris pick up, and setup or take down of special stages, equipment, tables, chairs, signs, and all other items as needed.

C.5.1.4.5. DITCHES, FLUMES, AND DROP INLETS

The SP shall clean ditches, flumes, and drop inlets to ensure proper drainage.

C.5.1.4.6. SOIL EROSION

The SP shall repair erosion damage. This shall include, but not be limited to, the following tasks: sodding, seeding, erosion blankets, channel lining, filler fabric, earthwork, rip/rap, and hay mulching.

C.5.1.4.7. EXCAVATION AND BACKFILLING

The SP shall provide equipment and manpower for excavation and backfilling as necessary. The SP shall also perform these tasks for the Government and other Government contractors when directed to do so under a Level II or Level III WO. The SP shall obtain from the COTR a drawing indicating the area affected. The SP shall verify the location of all utilities, abandoned or active, shown on the drawing provided. All utility lines are to be marked. Where it appears that excavation will cross, or come within the vicinity of an existing

utility line, the SP shall excavate with hand tools to locate the buried utility. Once exposed, the utility shall be protected from damage. The SP shall notify the COTR with in 5 minutes when utility lines or components have been damaged or unearthed during excavation. The drawing shall be returned to the COTR, marked up indicating all differences between the drawing and the actual conditions. All marks shall be made in red ink. The SP may be required to excavate in order to verify actual location of some utilities. The SP shall coordinate with the ERDC Communications Officer concerning the location of telephone cables. The SP shall remove shrubs or trees necessary to excavate, unearth, and remove debris to reach the work area. The excavated area shall be secured with barricades when unattended. Backfilling shall be accomplished with dry sand, pea gravel, or compactable dirt. No gravel or rock larger than ½ inch diameter shall be allowed to contact a utility. The SP shall place, above the repaired utility, tracer wire and magnetic tape 6 inches to 12 inches in the backfill.

C.5.1.4.8. HAZARDOUS MATERIAL SPILLS

The SP shall provide emergency response as directed by the installation On-Scene Coordinator to contain spills of hazardous materials or hazardous waste 24 hours per day, 7 days per week. The SP shall provide containment services only. The SP shall furnish 5 employees who are qualified as Hazardous Material Spill First Responders as defined in 29 CFR 1910.120 to support the Vicksburg Hazardous Material First Responders Operations Level Spill Team. The Government will supply the Team Coordinator, Alternate Coordinator, and a Hazardous Materials Specialist.

C.5.1.4.9. HANOVER PLAYGROUND

The SP shall install, repair, replace and remove a variety of playground equipment and shall assemble and install playground equipment in accordance with manufacturer's instructions and specifications. Playground equipment shall be kept in a safe operating condition by the SP.

C.5.1.4.10. FENCING AND GATES

The SP shall perform emergency repair as required on fencing and gates, including security chain link, non-security chain link fences, and various steel fence and gates.

C.5.1.4.11. PARKING LOT MARKINGS

The SP shall mark parking lots with light reflective paint or thermal striping. The SP shall install and maintain stop blocks in parking lots. Parking space lines, directional arrows, and other markings shall be repainted as required to ensure clear visibility. The SP shall put up and remove necessary safety and closure barriers (e.g., cones and signs) to promote safety in the work area.

C.5.1.4.12. MAINTENANCE AND REPAIR OF BITUMINOUS AND CEMENT CONCRETE PAVEMENTS

The SP shall maintain and repair paved surfaces to include concrete roadways, side walks, and surfaces of all types in a good state of repair with uniformity in appearance, at the original alignment and elevation, and free of damage, vegetation, potholes, scaling, spalls, surface breaks, and cracks. Work shall include, but not be limited to, repairing concrete surfaces, asphalt surfaces, expansion joints and pavement markings and centerlines.

C.5.1.4.12.1. Spot Repair

The SP shall repair potholes, upheavals, and eruptions of asphalt around fireplugs, in asphalt drainage ditches, and on all bituminous surfaced areas.

C.5.1.4.12.2. Shoulders

The SP shall maintain and repair road shoulders to protect the basic pavement structure, eliminate traffic hazards, and ensure proper drainage. The SP shall maintain all roadsides and intersections to ensure unobstructed visibility of all signs, markers, guardrails, and fire hydrants.

C.5.1.4.12.3. SIGN WORK

The SP shall repair, install, replace, and remove traffic signs in conformance with the standards set forth in the 33 CFR, Part 665, Manual of Uniform Traffic Control Devices for Streets and Highways. The SP shall maintain signs on buildings, structures, appurtenances, and along streets so that they are properly positioned, clean, and legible at all times.

C.5.1.4.13. PAVED SURFACE SWEEPING AND CLEANING

The SP shall provide sweeping services for unscheduled removal of dirt and debris from streets and roads at the Vicksburg site.

C.5.1.4.14. BRIDGES

The SP shall perform repairs and maintenance to 3 bridges at the Vicksburg site, as directed by the COTR.

C.5.1.4.15. CONSTRUCTION OF NEW SURFACES

The SP shall construct new graveled areas or prepare areas for pavement. Work shall include, but not be limited to, the following:

A. widening or lengthening surfaced areas
B. grading backslopes
C. constructing or relocating roads and constructing parking areas

C.5.1.4.16. UTILITY CUTS

The SP shall perform utility cuts in pavements as required to repair existing utilities or to install new service. Appropriate barricades and construction fencing shall be used on open cuts. The SP shall repair utility cuts using

materials with the same physical qualities as adjacent undisturbed areas.

C.5.2. UTILITY SYSTEMS OPERATION AND MAINTENANCE

C.5.2.1. INTRODUCTION

The SP shall perform operation, maintenance, and repair of utility systems and associated structures and appurtenances. The SP shall perform services as required in this PWS to provide complete maintenance of utility systems. Qualified personnel shall perform all work in accordance with applicable laws and regulations.

C.5.2.2. SCOPE OF SERVICES

C.5.2.2.1. WORK AREA/SYSTEM DESCRIPTION

Utility distribution lines include, but not limited to, water, gas, electrical, sewage and associated equipment and facilities shall be operated, repaired, and maintained as specified in this PWS.

C.5.2.2.1.1. Water Distribution Systems

The SP shall maintain and repair the entire water distribution systems. The water distribution system includes, but is not limited to, water mains, fire hydrants, shut-off valves, and backflow assemblies. Water is supplied from the local city municipal systems. The water distribution system at the Vicksburg site is approximately 7 miles long and consists of galvanized steel, cast iron, and polyvinyl chloride (PVC) lines. The water distribution system at the Hanover site is approximately 4,500 feet long and consists of galvanized steel, cast iron, and PVC lines.

C.5.2.2.1.2. Wastewater Collection System

The SP shall maintain and repair the wastewater collection systems. The wastewater collection system includes, but is not limited to, all wastewater collection systems and associated equipment such as gravity sewers, manholes, force mains, and lift stations. The lift stations at the Vicksburg site are maintained under a separate contract but the SP will provide emergency support to prevent overflow until the offsite contractor arrives on the scene. The Vicksburg site's wastewater collection system consists of approximately 7 miles of sewer mains. System line material includes, but is not limited to, vitrified clay, steel, cast iron, and PVC. There are 2 force mains and 16 lift stations on the installation. Wastewater is delivered to the Vicksburg municipal system at 2 points. The Hanover site's wastewater collection system consists of approximately 3,550 feet of sewer mains. System line material includes, but is not limited to, vitrified clay, cast iron, and PVC. There is 1 force main and 1 lift station on the installation. Wastewater is delivered to the Hanover municipal system at 2 points.

C.5.2.2.1.3. Storm Water Collection System

The SP shall operate, maintain, and repair the storm water collection systems. The storm water collection system includes, but is not limited to,

catch basins and invert drains, storm sewer lines, man-made channels, and natural drainage ways. These systems are primarily concrete or corrugated metal pipe. System outfalls discharge to natural drainage ways. The storm drain system at the Vicksburg site consists of approximately 9,740 feet of 8 inch lines, 12,580 feet of 10 inch lines, 5,910 feet of 12 inch lines, 7,900 feet of 15 inch lines, 6,550 feet of 24 inch lines, 2,630 feet of 30 inch lines, 1,170 feet of 36 inch lines, 830 feet of 48 inch lines, 490 feet of 60 inch lines, 210 feet of 72 inch lines, 360 feet of 84 inch lines, and 480 catch basins. The storm drain system at the Hanover site consist of approximately 9,934 feet of 12 inch, 15 inch, 18 inch, and 24 inch lines, and 50 catch basins.

C.5.2.2.1.4. Vicksburg Electric Distribution System

The SP shall maintain, operate, and repair the electric distribution system. The electric distribution system includes, but is not limited to, transformers, street lighting systems, control systems, underground and overhead power lines, switches, and electric meters. Maintenance of the 115 kV electrical substation is not included; however the SP shall perform operational switching in the substation. The electrical distribution system consists of 4 circuits, each of which is 13.8 kV, 3 phase lines with a combined total length of 8 miles. The 115 kV electrical substation, located adjacent to Gate 6, is a double ended substation with a rated capacity to deliver 32 MW of electrical power. Each transformer is connected to Entergy's transmission line through a 115 kV Semiens Line Backer motorized group operated switch and protected by differential relays. Each transformer is tied to the substation's bus work through a General Electric Vacuum Circuit Breaker protected by a set of instantaneous, and time delay relays. Each of the distribution circuits is connected to the substation bus work through a General Electric Vacuum Circuit Breaker protected by a set of instantaneous and time delay relays, and a circuit recloser. Each of the above mentioned General Electric Vacuum Circuit Breakers is capable of being individually bypassed in an emergency by a series of manual group operated switches. The substation bus work itself has 3 separate 13.8 kV buses. One of these is a bypass or emergency bus across the top of the structure. Below this bus are the remaining 2 shorter buses, which are interconnected in the center by a General Electric Vacuum Circuit Breaker used as a bus tie breaker.

C.5.2.2.1.5. Gas Distribution Systems

The SP shall operate, maintain, and repair the natural gas system at the Vicksburg site. The natural gas system consists of approximately 6 ½ miles of coated steel, polyethylene, and cast iron lines. Line pressure in all mains and laterals ranges from 20 pounds per square inch (psi) to 10 pounds psi depending on demand. The SP shall operate, maintain, and repair the liquid petroleum (LP) gas distribution systems at the Hanover site. A 500 gallon under ground LP tank serves the Main Laboratory Building, a 500 gallon under ground LP tank serves the Remote Sensing Building, a 1000 gallon

under ground LP tank serves the greenhouse, a 500 gallon above ground tank serves the Asphalt Laboratory Building, two 125 gallon above ground tanks located at the PPP building, and a 500 gallon above ground tank serves the Mobility Laboratory Building. The SP shall maintain, repair, and ensure safe operation of the natural gas and LP gas distribution system lines within the buildings or facilities.

C.5.2.2.1.6. Hanover Fuel Oil Storage Tanks
The SP shall operate, maintain, and repair the 3 above ground fuel oil storage tanks and 3 below ground fuel oil tanks.

C.5.2.2.2. WATER SERVICE DISRUPTION
In the event of a water line or main break, the SP shall disinfect the lines and main in accordance with American Water Works Association (AWWA) C651 Disinfecting Water Mains. The COTR shall be notified immediately when a section of the potable water distribution system is out of service and when the system has been returned to normal service. The SP shall collect samples of water in affected areas and provide them to the Government for testing when the system is returned to service. The SP shall make every attempt to minimize the impact on normal service operations.

C.5.2.3. SCHEDULED TASKS
The SP shall perform the tasks described below on a recurring or scheduled basis. MWOs will be issued for these tasks.

C.5.2.3.1. PLUMBING PREVENTIVE MAINTENANCE

C.5.2.3.1.1. Vicksburg Lift Stations
On a monthly basis, the SP shall apply Government supplied degreasers in the 16 lift stations. A map showing the location of the lift stations is provided in TE 5.2-001.

C.5.2.3.1.2. Vicksburg Sewer Lines And Manholes
On a monthly basis the SP shall apply Government supplied chemicals to the manholes and sewer lines indicated in TE 5.2-002.

C.5.2.3.1.3. Vicksburg Fire Hydrants
On an annual basis, the SP shall flush approximately 50 fire hydrants. In addition to the annual flushing, the SP shall repair or replace components as required. Maps showing the location of the fire hydrants are available at the DPW Engineering Division Office. The fire hydrant checklist is provided in TE 5.2-003

C.5.2.3.1.4. Hanover Backflow Preventers
On semi-annual basis, the SP shall check backflow preventers for proper operation. A list of the location of the backflow preventers and a checklist is

provided in TE 5.2-004.

C.5.2.3.1.5. Hanover Water Meters

On a quarterly basis, the SP shall read the water meters and record and supply readings to the COTR. A list of the water meters is provided in TE 5.2-005. Intervals between readings shall not be less than 112 calendar days or more than 128 calendar days. Readings shall be turned into the COTR not less than 5 working days after the meters are read.

C.5.2.3.1.6. Hanover Fuel Oil Tanks

On a monthly basis, the SP shall record the fuel oil levels in above ground and below ground fuel oil tanks in all tanks except Tank #6. The SP shall record the fuel oil levels in Tank #6 weekly. This information shall be provided to the COTR. Information on and location of the tanks is provided in TE 5.2-006.

C.5.2.3.1.6.1. Above Ground Tanks

The SP shall make a monthly inspection of the above ground fuel tanks and fill out the fuel oil tank checklist provided in TE 5.2-007.

C.5.2.3.1.6.2. Below Ground Tanks

On an annual basis the SP shall perform sensor testing of the below ground fuel tanks. The required sensor testing is detailed in TE 5.2-008.

C.5.2.3.2. ELECTRICAL DISTRIBUTION, AND EMERGENCY POWER SYSTEMS

The SP shall maintain, and operate the electrical distribution system at the Vicksburg site to provide stable and reliable power to all facilities. The SP shall ensure that electrical facilities are reliable, operationally efficient, and present no risk to personnel or equipment. The SP shall maintain emergency generators at the Hanover site.

C.5.2.3.2.1. Vicksburg Aerial Distribution System

The SP shall inspect the aerial distribution lines on an annual basis for damaged insulators, lightning arrestors, terminations, switches, guy wires, anchors, shield wire, and ground wires. The SP shall also inspect the wooden poles and crossarms for rot. The SP shall provide the COTR with a list of deficiencies discovered during the inspection. The SP shall request WOs to correct the discovered deficiencies. The deficiencies list shall be provided to the COTR within 5 working days of the completion of the inspection. Maps of the distribution system are available at the DPW Engineering Division Office.

C.5.2.3.2.2. Hanover Emergency Generators

The SP shall perform a weekly inspection of emergency generators. The SP shall check and refill the levels of oil, coolant, and battery electrolyte as

necessary. The SP shall report problems discovered to the COTR. The SP shall complete the appropriate checklist, TE 5.2-009. A list of emergency generators and their locations is presented in TE 5.2-009.

C.5.2.4. UNSCHEDULED TASKS

The SP shall perform the tasks described below on an as needed basis. Task shall be performed when a WO is issued to the SP.

C.5.2.4.1. WATER DISTRIBUTION SYSTEMS

The SP shall maintain, and repair the water distribution system and associated equipment.

C.5.2.4.1.1. Water Mains

The SP shall maintain and repair all lines to ensure the integrity of the water distribution system. The SP shall also repair, locate new lines, excavate (including asphalt and pavement and sidewalk removal, if necessary), backfill, and clean up all water spillage as necessary to provide a safe environment to the public; erect barricades prior to excavating and remove them after backfilling; grade and seed as applicable; and thaw and repair frozen potable water lines. Repairs include, but are not limited to, repairs to service connections and distribution mains. The SP shall restore the area to its original condition after repairs, installations, or modifications are complete.

C.5.2.4.1.2. Water Main Repair

The SP shall locate water main and lateral service leaks, shut off the water, repair the leak, and return water lines to a safe and serviceable condition. In the event of a water main break the SP shall repair, disinfect, and provide samples to the Government, which will perform the necessary microbiological water tests before reinstating the water service. The water main and lateral service shall not be returned to service until approved by the COTR.

C.5.2.4.1.3. Valves And Valve Boxes

The SP shall maintain complete operability of the distribution system; repair, install, or replace valves and valve boxes to maintain integrity of the water distribution system; and locate valves, shut off water, decontaminate water lines, turn on water, flush water lines, and restore them to serviceable condition. The water system's valves generally consist of gate valves. Valves range from ½ inch to 8 inches in diameter.

C.5.2.4.2. WASTEWATER COLLECTION SYSTEMS

The SP shall maintain, repair, and operate the wastewater systems to provide stable, reliable wastewater services to all facilities. The SP shall repair, install, replace, or unclog lines as required. In the event of spillage or overflow, the SP shall notify the COTR within 5 minutes of discovery. The SP shall notify

the COTR prior to line repair work that disrupts traffic and provide an estimate of the length of the disruption.

C.5.2.4.2.1. Sewer System Malfunctions

Malfunctions in the sewer system, such as stoppages or structural failures causing interruption of service, shall be traced by the SP to the probable cause and alleviated. Emergency sewer maintenance shall be performed on gravity mains, forced mains, and lift stations to free blockage and repair malfunctions.

C.5.2.4.2.2. Wastewater Manholes

The SP shall remove, install, and replace wastewater manholes, drop inlets, and covers as necessary. Entry into a wastewater collection system requires a Confined Space Entry Permit, in accordance with OSHA Confined Space Entry Regulations.

C.5.2.4.3. STORM DRAINAGE SYSTEMS

The SP shall maintain, repair, and clean storm drainage systems. The SP shall repair all damages to road shoulders (dirt or hard surfaced) occurring during maintenance, repair, and cleaning of storm drainage systems within 7 working days. The SP shall utilize and comply with the Water Pollution Control Federation Manual for safety and record keeping and shall comply with all applicable Federal, State, and Army health and environmental standards in performing storm water services.

C.5.2.4.3.1. Storm Water Collection Main Repair

The SP shall repair, install, modify, or replace all storm water collection mains to preserve the integrity of the storm water collection system. The SP shall locate storm water collection main leaks, repair the pipe, and return storm water lines to serviceable condition.

C.5.2.4.3.1.1. Storm Sewers

The SP shall remove, install, and replace storm sewers, grates, drop inlets, and covers as necessary. Entry into a storm water collection system requires a Confined Space Entry Permit, in accordance with OSHA Confined Space Entry Regulations.

C.5.2.4.3.1.2. Replacing Pipe

The SP shall repair or replace damaged, broken, collapsed, or clogged drainage pipes by reopening pipe trench and repairing or replacing damaged or worn pipes. The SP shall excavate pavement to gain access to storm sewers or drainage facilities where required.

C.5.2.4.3.1.3. Storm Sewer Manholes

The SP shall maintain and repair storm sewer manholes including repairing and replacing caps, ladders, rings, covers, and interior linings;

uncovering those covered by dirt and debris and raising top to ground level; and removal of grit, sand, and debris from manholes. The SP shall, after rodding or cleaning sewer lines, remove all wastes and debris that surrounds the manhole clean out area. Entry into a storm water collection system requires a Confined Space Entry Permit, in accordance with OSHA Confined Space Entry Regulations.

C.5.2.4.3.2. Catch Basins

The SP shall clean catch basins, drop inlets, open flumes, manholes, and similar structures based on rate of silting or clogging with debris in order to ensure proper runoff. When entry into a structure is necessary, the SP shall comply with OSHA Confined Space Entry Regulations. The SP shall maintain headwalls to prevent erosion or scour of the embankment adjacent to culvert inlets or outlets

C.5.2.4.4. ELECTRICAL DISTRIBUTION, AND OTHER ELECTRICAL SYSTEMS

The SP shall maintain, install, repair, reconfigure, and adjust the electrical, distribution, and other electrical systems to provide stable, reliable power to all facilities. The SP shall ensure that electrical facilities are reliable, operationally efficient, and present no risk to personnel or equipment.

C.5.2.4.4.1. Vicksburg Aerial Distribution Systems

The SP shall install and maintain all aerial electrical distribution systems to include but not limited to troubleshooting, repair, adjustment, installation, and replacement of: poles, cross arms, switches, conductors, lightning arrestors, ground wires, transformers, guy wires and anchors, cables, and associated distribution equipment.

C.5.2.4.4.2. Vicksburg Underground Distribution Systems

The SP shall install and maintain all underground electrical distribution systems to include but not limited to troubleshooting, repair, adjustment, installation, and replacement of: wiring, transformers, conduits, duct banks, hand holes, junction boxes, man holes, and associated underground distribution equipment. When working in manholes or other hazardous areas involving restricted movement or the presence of incapacitating fumes or gases, 1 worker shall be positioned to take necessary action required for assistance. Entry into these areas requires a Confined Space Entry Permit, in accordance with OSHA Confined Space Entry Regulations.

C.5.2.4.4.3. Grounding Systems

The SP shall install and maintain grounding systems to include building and distribution system grounding and lightning protection systems.

C.5.2.4.4.4. Electric Meters

The SP shall replace, repair, and maintain Kilowatt Hours (KWH) demand

meters, ammeters, voltmeters, power factor meters, and associated enclosures, instrument transformers, Current Transformers, and Potential Transformers.

C.5.2.4.4.5. Exterior Lighting

The SP shall repair the exterior lighting system as required. The exterior lighting system includes walkway, street, and parking lot lighting; area lighting; perimeter and security lighting; and encompasses bases, poles, fixtures, and controls. Cleaning of light fixtures shall coincide with relamping. The SP shall install, uninstall, and store decorative lighting in support of installation functions and requirements.

C.5.2.4.4.6. Vicksburg Substation and Distribution System Support

The SP shall provide operational switching to redirect or reconfigure substation operation and electrical distribution circuits. Switching shall be performed as required to execute WOs.

C.5.2.4.4.7. Power Failure

In the event of a power failure, the SP shall identify the cause of the failure (total power failure, partial power failure, single phase condition) and accomplish necessary actions to restore power while minimizing the time that a facility or area is without electric power. The SP shall troubleshoot, repair, or replace faulty electrical system components, fuses, or associated equipment as required to restore power.

C.5.2.4.4.7.1. Vicksburg Storm Damage

The SP shall clear debris to allow access to damaged areas, and repair or replace damaged electrical equipment. The SP shall repair damaged electrical distribution systems to include, but not limited to, replacement of: poles, conductors, transformers, cross arms, switches, fuses, insulators, guys, and associated electrical distribution system equipment.

C.5.2.4.4.7.2. Vicksburg Lift Stations

The SP shall provide interim measures to prevent wastewater spills, or restore power for lift station pumps.

C.5.2.4.4.8. Temporary Power

The SP shall provide temporary power to critical facilities or requirements as directed by the COTR.

C.5.2.4.4.9. Support to DPW Engineering Division

The SP shall provide electrical distribution system data collection support to the DPW Engineering Division on electrical systems.

C.5.2.4.4.10. Vicksburg Support of Communications Systems

The SP shall install or replace poles for the communications systems.

C.5.2.4.4.11. Vicksburg Warning Sirens for Post Alert System
The SP shall troubleshoot and repair the Post Alert System.

C.5.2.4.4.12. Vicksburg Bucket Truck Support
The SP shall provide bucket truck support to the installation as needed.

C.5.2.4.4.13. Special Requirements
The SP shall provide electrical support for special functions with generators, extension cords, and fans.

C.5.2.4.4.14. Hanover Electronic Pest Control Equipment
The SP shall clean and provide maintenance for electronic pest control equipment.

C.5.2.4.5. GAS DISTRIBUTION SYSTEMS
The SP shall maintain, repair, and operate the natural gas distribution system at the Vicksburg site, and all associated equipment, to include, but not limited to, valves, pipes, fittings, regulators, and meters. The SP shall maintain liquid petroleum gas distribution systems at the Hanover site. The SP shall respond to all gas leaks or odor complaints. All work performed on the natural gas distribution system shall be in accordance with all Federal, State, and local regulations.

C.5.2.4.6. HANOVER FUEL OIL STORAGE TANKS
The SP shall maintain, repair, and operate the fuel oil storage tanks and distribution system and all associated equipment to include, but not limited to, fittings, meters, sensors, pumps, and covers.

C.5.3. BUILDINGS AND STRUCTURES MAINTENANCE

C.5.3.1. INTRODUCTION

The SP shall maintain and repair buildings and structures as specified in this PWS. Buildings and structures include, but are not limited to, offices, storage facilities, buildings that house model structures, work areas, recreation facilities, training facilities, loading docks, and bridge structures. The SP shall also perform alterations and minor construction as approved by the COTR. The SP shall coordinate all work with the customer in order to avoid life threatening situations, hardships, and operational problems. All work shall be performed by qualified personnel in accordance with applicable laws and regulations.

C.5.3.2. SCOPE OF SERVICES

C.5.3.2.1. WORK AREA/SYSTEM DESCRIPTION

The SP shall perform scheduled maintenance and repair of buildings, structures, and associated property and equipment encompassing a variety of trades including carpentry, mechanical, plumbing, electrical, painting, metal, roofing, structural, and masonry. Buildings and structures covered under this Functional Area include, but are not limited to, the following:

A. Administrative buildings
B. Cafeterias
C. Model shelters
D. Maintenance and repair shops
E. Warehouses
F. Storage and equipment sheds
G. Transportation facilities
H. Childcare and recreational facilities
I. Offices and Laboratories
J. Housing
K. Utility system buildings and structures
L. Portable Buildings

The SP shall maintain all buildings and structures currently in existence and those constructed during the contract period.

C.5.3.2.2. WORK MANAGEMENT AND CONTROL

C.5.3.2.2.1. Work Site Clean Up

The SP shall clean up work sites each day and shall deposit debris in existing Government dumpsters, landfills, or other area as designated by the COTR. When necessary the SP may be required to provide dumpsters as a reimbursable expense.

C.5.3.2.2.2. Electrical, Water, and Gas Systems
The SP shall ensure that water; chilled water and hot water, vacuum, inert gases, natural gas, steam and condensate, electrical, and fire suppression systems are available, upon demand, at pressures and flow rates in accordance with system design specifications, where available, in all applicable buildings and structures.

C.5.3.3. SCHEDULED TASKS
The SP shall perform the tasks described below on a recurring or scheduled basis. MWOs will be issued to the SP to perform these tasks.

C.5.3.3.1. PLUMBING PREVENTIVE MAINTENANCE

C.5.3.3.1.1. Hanover Eyewash Stations/Showers
On a weekly basis the SP shall flush and inspect the emergency eyewash stations/showers for proper operation. The SP shall request a WO to correct problems discovered. A list of the eyewash showers, locations and a checklist is provided in TE 5.3-001.

C.5.3.3.1.2. Hanover Reverse Osmosis (RO) Water System
On a daily basis the SP shall monitor the water purity and storage tank level of the RO water system in the Main Laboratory Building. The SP shall change the 20 inch particle filter, 10 inch particle filter and 10 inch activated carbon filter of this system on a quarterly basis. On an annual basis the SP shall inspect this system for operational defect and replace the ultra violet lamp, activated carbon in the 55 inch cylinder, the 44 inch D.I. cylinder and the 44 inch carbon cylinder. The SP shall request a WO to correct problems discovered. A checklist is provided in TE 5.3-002.

C.5.3.3.2. EMERGENCY AND EXIT LIGHTING
On a semi-annual basis, the SP shall inspect the emergency lighting systems and exit lights for proper operation and perform routine maintenance. This maintenance inspection shall include: testing all systems and units for correct operation, cleaning battery compartments, maintaining normal battery electrolyte level, checking light heads for proper orientation and operation, and tightening loose connections. The SP shall request WOs to correct deficiencies detected during the inspection. Information on the emergency lighting systems is provided in TE 5.3-003 and a checklist is provided in TE 5.3-004.

C.5.3.4. UNSCHEDULED TASKS
The SP shall perform the tasks described below on an as needed basis as determined by the Government and when a WO is issued for them.

C.5.3.4.1. VICKSBURG ASBESTOS REMOVAL SERVICES
The SP shall perform asbestos removal and clean up in support of other

maintenance and repair operations and building. The SP shall comply with all regulations, policies, and standards of the EPA, Mississippi Department of Environmental Quality (MDEQ), and OSHA governing work with and disposal of asbestos containing materials (ACM). Training of asbestos abatement supervisors shall be in accordance with the Model Curriculum for Training Asbestos Abatement Contractors and Supervisors. The training of asbestos abatement workers shall be in accordance with the Model Curriculum for Training Asbestos Abatement Workers.

C.5.3.4.1.1. Notification

The SP shall coordinate the work with the COTR. The COTR must notify the MDEQ, 10 working days prior to starting asbestos removal project involving more than 260 linear feet, 160 square feet, or 1 cubic yard of regulated asbestos containing material (RACM). The SP shall schedule the work to facilitate this requirement.

C.5.3.4.1.2. Work Site Control

The SP shall control each work site by setting up protective barriers and placing signs on all entrances. The SP shall maintain a daily log of all persons entering the work site. The log shall include the date, the project number, person's name, time in, and time out for each entry.

C.5.3.4.1.3. Removal Operations

Removal operations shall be limited to removal of ACM to include, but not limited to, gasket materials, transite siding, and floor tile. Generally, removals that may be classified as class II are within the scope of work for this requirement. The SP shall remove ACM within the above parameters upon receipt of a valid WO. The WO shall specify the scope of work, detailing the location, or locations, and quantities to be removed. The SP shall notify impacted personnel and activities; schedule work; coordinate work with adjacent impacted activities; plan and prepare work areas for abatement operations; remove or otherwise abate the specified ACM; and package and store wastes generated by the abatement project as necessary.

C.5.3.4.1.4. ACM Disposal

ACM generated from abatement operations shall be disposed of using the existing installation procedures. This requires the preparation of DRMS FORM 1930, packaging the material as required by law, and turning the material over to the Logistics Management Office. Disposal cost will be the responsibility of the Government.

C.5.3.4.2. CARPENTRY

The SP shall perform carpentry services for minor construction, maintenance, and repairs on buildings and structures. Maintenance and repair of buildings and structures shall include structural features such as, walls, doors, windows,

floors and floor coverings, porches, stairs, fixtures, hardware, exterior and interior painting, and glazing. The SP shall maintain and repair other equipment including playground equipment, interior and exterior woodwork trim, bulletin boards, display cases, cabinets, partitions, and ceilings as directed by the COTR and as specified in this PWS. Interior and exterior surfaces may also contain asbestos (sprayed on ceiling and ceiling tiles, floor tile, mastic, pipe and pipe fitting insulation) that may be disturbed during repair or renovation.

C.5.3.4.2.1. Quality Standards

Interior and exterior finishes, trim, and decor shall be maintained to match or exceed existing appearance and quality. All carpentry work performed shall be consistent with the construction and appearance of the existing facility or structure, unless otherwise directed by the COTR. The SP shall follow national building practices in all cases, to include, but not limited to, the, International Code Council (ICC), and the International Building Code (IBC).

C.5.3.4.2.2. Carpentry Functions

The SP shall repair, replace, install, and remove carpentry items such as framing, finish work, floor and wall coverings, ceilings, roofing, porches, cabinets, and hardware on buildings, structures, and facilities.

C.5.3.4.2.3. Forms

The SP shall lay out, fabricate, install, and remove a variety of forms for concrete placement such as headwalls, pads, sidewalks, stoops, and curbs.

C.5.3.4.2.4. Framing

The SP shall lay out, install, replace, repair, and remove interior and exterior walls, floors, roofs, steps and handrails, ceilings, and roofs. Components include, but are not limited to, studs, ceiling and floor joists, diagonal bracing, cripples, trimmers, headers, fire blocks, sole plates, and top plates. The SP shall layout, install, replace, and remove insulation, in roofs, walls, floors, and ceilings.

C.5.3.4.2.5. Windows

The SP shall install, repair, and replace windows, including storm windows and screens, thermal pane windows, sashes, lifts, locks and latches, balances, anchors, and trim. The SP shall also install and maintain weather-stripping, threshold windows (sliding, double-hung, fixed and casement, window frames, window arm, and window crank operators), standard and non-standard windows, rails, mullions, frames and casings for windows.

C.5.3.4.2.6. Doors

The SP shall install and maintain interior and exterior metal and wood doors (single, double, Dutch, storm, screen, pocket, cabinet, overhead, sliding, bi-folding, latrine partition, and accordion), door frames, and hardware, door

closures, hinges and knobs, barrel bolts, dead bolts, head and foot bolts, thresholds, manual door stop and holder open, hasps, panic hardware, and door bumpers.

C.5.3.4.2.7. Walls

The SP shall install, repair, replace, remove, and fabricate interior walls and partitions (to include insulation, wall covering, trim, and finish) consisting of gypsum, plaster, wood and paneling, trim (window, door, floor, and ceiling), and finishes (paint, vinyl, wall paper, and pre-finished paneling). In addition, the SP shall install metal studs for gypsum interior wall systems.

C.5.3.4.2.8. Ceilings

The SP shall lay out, install, repair, replace, and remove ceilings such as gypsum, acoustical tile, suspended ceiling, and plywood. The SP shall repair ceilings (to include insulation, furring, suspension systems, and anchors) consisting of gypsum, wood, cellulose, and acoustical materials.

C.5.3.4.2.9. Floor Coverings

The SP shall lay out, install, repair, replace, and remove interior and exterior sub flooring, underlayment, and floor coverings, including rubber, asphalt, or vinyl tile, tongue and groove, plywood, wood parquet, quarry tile, and mastipave. The SP shall install, repair, replace, and remove nonskid materials on areas such as stairs, steps, and ramps. The SP shall install and repair floor covering and underlayment to include, resilient tile and sheet goods, wood, quarry tile, quarter round, baseboard, rubber base, and monolithic placed composition.

C.5.3.4.2.10. Finish Carpentry

The SP shall fabricate, install, repair, replace, and remove finish carpentry work such as map boards, towel bars, toilet paper holders, grab bars, window screens, signs, bookcases, various types of molding, pictures, crowns, shoes, and coves.

C.5.3.4.2.11. Cabinet Making

The SP shall lay out, fabricate, install, repair, and replace hand made items such as fine cabinetry, racks, shelves, showcases, storage units, file boxes, service counters, workstations, kitchen and bathroom cabinets, plastic laminate counter tops, and specially constructed office furniture which may have intricate, precise, and fancy features such as curved and contoured surfaces, and complex joints.

C.5.3.4.2.12. Attached Structures

The SP shall replace or repair porches, patios, decks, and covered walkways and areas to include floors, decks, steps, risers, and hand or other railings.

C.5.3.4.2.13. Shipping Crates

The SP shall construct shipping crates for delicate instruments and hazardous materials. This task shall be accomplished observing all applicable federal, state, and local regulations.

C.5.3.4.3. ROOFING

The SP shall provide roofing repair services for buildings and structures. These services include repairing, replacing, and removing various types of roofing, gutters, and downspouts. The SP shall flash and re-tin or replace ventilators as necessary to repair damage and stop or prevent leaks. The SP shall cut roof penetrations, install roof jacks, and ensure that roof penetrations are sealed to prevent all kind of moisture leakage. In the course of roofing work, the SP shall also install damaged acoustical tiles and other building components damaged by leaks. Types of roofing to be worked on shall include, but not be limited to, metal roofing, shingles, roll roofing, felt, built-up roof and rubber. The SP shall clean out debris from gutters and downspouts.

C.5.3.4.3.1. Temporary Repairs

The SP shall make temporary repairs to damaged roofing, if required, until permanent repairs can be accomplished. The SP shall inform the COTR if there is a probability that temporary repairs may place Government property or personnel at risk.

C.5.3.4.4. LOCKSMITH SERVICES

The SP shall install, maintain, adjust, and repair locks of different makes, sizes, and shapes. The SP shall make duplicate keys and re-key cylinder locks.

C.5.3.4.5. MASONRY

The SP shall provide fabrication, minor construction, maintenance, and repair services for projects utilizing brick, concrete, masonry block, cinder block, tile, piping, cement, mortar, marble, grout, and sealant traditionally associated with the masonry trades. Masonry work shall include, but is not limited to, the repair, replacement, and maintenance of foundations, fluid containment walls and barriers, walls, floor slabs, diversion of water from exterior walls, and similar items. The completed work shall be consistent with the construction and appearance of existing facilities or structures.

C.5.3.4.5.1. Structural Components

The SP shall construct, maintain, and repair walls, foundations and floor slabs to keep them sound and free of leaks.

C.5.3.4.5.2. Tile and Fixtures

The SP shall install and repair all types of ceramic and quarry tile, and install all types of shower stalls, walls, and floors. The SP shall layout, install, repair, replace, and remove various types of ceramic tile (such as bullnose,

sanitary base, sanitary quarry, base bullnose, and field) and sanitary base corners on baseboards, floors, and walls. The SP shall repair and replace shower curtain rods, soap dishes, ceramic hand pulls, towel bars, and various ceramic fixtures.

C.5.3.4.5.3. Brick and Block Laying

The SP shall lay blocks and bricks to install all types of doors, fences, and windows in structure openings. The SP shall perform all types of masonry work as required to maintain the security of the structure.

C.5.3.4.5.4. Concrete Work

The SP shall perform all concrete work in accordance with ACI 318 (American Concrete Institute) Building Code Requirements for Structural Concrete. The SP shall fabricate forms for steps, ramps, approaches, footers, storm drain manholes, concrete curbing footers, catch basins, sump basins, concrete curbing, sanitary manholes, traffic islands, and retaining walls. The SP shall pour and finish concrete slabs, pavements, sidewalks, and stairs to include placing reinforcements and other embedded items.

C.5.3.4.5.5. Walls and Ceilings

The SP shall construct, maintain, and repair all ceilings, walls, and plaster formations to match the surrounding areas. This work shall include patching and replacing broken or cracked areas and touch-up painting of affected areas.

C.5.3.4.5.6. Monuments

The SP shall repair and maintain monuments, masonry decorations, or fixtures as required.

C.5.3.4.6. PAINTING

The SP shall paint the interior and exterior of all buildings, structures, and facilities covered by this PWS, as well as special designs, and insignia. Painting shall be accomplished for appearance and for surface protection. The SP shall paint items such as walls, ceilings, railings, decks, floors, window frames, doors, doorframes, moldings, handrails, stairs, fire hydrants, gates, steps, stands, fences, decking, equipment, ramps, awnings, flagpoles, cabinets, bulletin boards, and other constructed or manufactured items. Paints include, but are not limited to, all enamels, paints of all base types, varnishes, and stains. The SP shall paint different types of surfaces such as wood, plaster, metal, concrete, gypsum, masonry, rocks, fiberglass, plastic, and glass. The SP shall perform touch up painting on areas which have been damaged or soiled. Paint used for touch up of repaired surfaces shall blend with the color and texture of the surrounding areas.

C.5.3.4.6.1. Surface Preparation

Prior to applying primers, paints, stains, shellacs, varnishes, or lacquers, the

SP shall prepare all surfaces, including removing contaminants. The SP shall prepare all surfaces in a manner appropriate to the surface and the material to be applied to the surface. The SP shall repair and patch imperfections on surfaces.

C.5.3.4.6.2. Fixture Protection
Electrical outlets, covers, switch covers, windows, and fixtures shall be masked or removed before painting and uncovered or reinstalled upon work completion.

C.5.3.4.6.3. Property Protection
The SP shall move, reset, and protect furniture and equipment from damage (e.g. paint dropping on Government and privately owned property during the performance of painting tasks).

C.5.3.4.6.4. Paint Application
The SP shall apply paint by brush, roller, or spray. Interior paint shall be applied in dust-free conditions in accordance with the manufacturer's recommendations. All coats shall be prepared so that the quality and type of paint match and meet manufacturer's recommendations.

C.5.3.4.6.5. Coat Application
The SP shall apply primer, intermediate, and finish coats as required. Each coat shall be sanded and dusted as prescribed by the paint manufacturer.

C.5.3.4.6.6. Finished Surface Quality
The SP shall apply paint to ensure that finished surfaces are free of runs, drops, ridges, waves, laps, brush marks, and variations in color, texture, and finish. Paint surfaces adjoining other materials or colors shall be sharp and clean and shall not overlap.

C.5.3.4.6.7. Paint Color
The color of paint for entire walls, rooms, and exteriors of buildings will be selected by the Government.

C.5.3.4.6.8. Lead Content
The SP shall not use lead-based paint. Lead based paint has been classified as a hazardous material.

C.5.3.4.6.9. Mixing and Thinning
Prior to application, the SP shall mix paints to ensure that they are completely blended and have no color variation, lumps, or foreign matter. The SP shall not mix paints from different manufacturers. The SP shall thin paint prior to application when necessary to suit conditions of surface, temperature, weather, or other application conditions.

C.5.3.4.6.10. Other Painting Tasks

C.5.3.4.6.10.1. Gypsum
The SP shall tape, patch, and finish gypsum. The SP shall reset all nails, tape all joints, cracks, holes, and texture gypsum. The SP shall use perforated tape and apply joint compound until surface area is free of defects. The SP shall allow every coat of joint compound to dry completely before application of the next coat. The SP shall apply different types of wall textures such as smooth finish and roll-on finish. The SP shall apply stipple-ceiling coatings.

C.5.3.4.6.10.2. Finishing and Refinishing
The SP shall finish and refinish different types of surfaces and materials. The SP shall sand, stain, varnish, shellac, and lacquer picture frames, tables, book shelves, desks, paneling, wainscot, doors, benches, stairways, chairs, railing, wooden floors, and other surfaces or materials.

C.5.3.4.6.10.3. Spray Painting
The SP shall perform spray painting in the spray booth or in well-ventilated areas and in accordance with all Federal, State, and local environmental guidelines and standard trade practices.

C.5.3.4.7. METAL WORK
The SP shall provide maintenance and repair or replacement of metal components of buildings and structures, installed building equipment and install metal components in support of other maintenance activities. The SP shall perform metal work and sheet metal work to buildings, structures, equipment, and facilities to include, but not be limited to, the following areas and tasks:

C.5.3.4.7.1. Metal Components
The SP shall fabricate, install, repair, and replace parts or complete assemblies as required for metal components of buildings. The SP shall remove dirt and grime from bare metal components and unit exteriors to prevent rusting.

C.5.3.4.7.2. Hanover Welding
The SP shall weld all types of metals to include, but not be limited to, copper, brass, aluminum, steel, galvanized steel, stainless steel, iron, cast iron, and cast steel. Processes to be used include arc, heli-arc, acetylene, inert gas welding (cutting oxy/acetylene brazing/grinding), and welding wire. Welding shall be performed on hardened metals of light and heavy gauges; in flat, vertical, and overhead positions; and in confined entry spaces above and below ground. Processes include preheating, brazing, bead welding, tack welding, spot welding, butt welding, frame cutting, pressure welding, and heat-treating. Welding shall comply with Subpart Q of 29 CFR 1910,

OSHA General Industry Standards.

C.5.3.4.7.3. Fences and Cages

The SP shall repair all perimeter and security fences, transformer fences, boundary fences, industrial area fences, gates, and other security cages to ensure that unauthorized entry is not made to restricted areas. Repairs include, but are not limited to, repairing holes in chain link fencing and wire cages; stringing barbed wire; replacing or resetting fence support stanchions; replacing or repairing hinges and locking devices; removing rust and corrosion; and painting fences.

C.5.3.4.7.4. Doors and Frames

The SP shall install, repair, replace, and remove metal doors, metal kick plates to wooden doors, gussets, trim, access doors, and frames.

C.5.3.4.7.5. Miscellaneous Metal Work

The SP shall lay out, fabricate, install, repair, replace, and remove motor covers, flag poles, handrails, exhaust fan guards, blackboards, and other metal work as required by valid WO.

C.5.3.4.8. PLUMBING AND STEAMFITTING

The SP shall maintain all plumbing systems and their associated equipment and components. HVAC piping at the Vicksburg site is not included in this PWS. The SP shall provide the proper installation, maintenance, repair, and replacement as approved and necessary of all plumbing, potable and non-potable water, sewer, heating, natural gas, inert gas, vacuum, compressed air, steam, hot water, fuel oil, chilled water systems and their associated equipment and components, fittings, and piping. The SP shall install, maintain, and repair all types of special equipment or fixtures and replace old equipment, components, and fixtures requiring plumbing connections. The SP shall remove blockage from drain lines, sewers, floor drains, fan coil units, air handling units, stacks, and vents.

C.5.3.4.8.1. Pipe Insulation

The SP shall install, maintain, repair, and replace pipe insulation including, but not limited to, ceramic, fiberglass, urethane, and foam insulating materials. The SP shall install protective metal covering to the insulation as directed by the COTR or WOs.

C.5.3.4.8.2. Types of Piping

Types of piping the SP is responsible for shall include, but is not limited to, concrete, galvanized, copper, cast iron, clay, PVC, iron piping, CPVC, iron pipe size (IPS) and copper tube size (CTS), gas pipe, asbestos concrete, ductile iron, black iron, and brass.

C.5.3.4.8.3. Plumbing Fixtures

The SP shall maintain all types of domestic, commercial, and industrial water heaters, hot water storage tanks, and plumbing fixtures, including but not limited to, commodes; urinals; kitchen, utility, and laundry sinks; garbage disposals; dishwashers; drinking fountains; showers; bathtubs; grinders; spouts; traps; faucets; sprayers; water closets; water coolers; flushometers; automatic flushometers; lavatories; hot water temperature control devices; and associated equipment and components.

C.5.3.4.8.4. Sump and Circulating Pumps

The SP shall install, maintain and repair all sump and hot water circulating pumps. The SP shall inspect, repair and perform overhaul work on pumps (e.g. disassembly; replace worn impellers, shafts and bearings; reassembly; and align couplings for proper operation). The SP shall inspect, repair, or replace pressure gauges and valves to include, but not limited to, check valves, ball valves, and globe valves. The SP shall clean and properly dispose of sand, dirt and other debris from sump pits. The SP shall operate pumps to ensure the accessibility of areas for maintenance and repairs.

C.5.3.4.9. DEMOLITION

The SP shall demolish facilities and portions of facilities identified by the COTR. Interior and exterior surfaces may contain lead-based paint and require precautions to protect workers. Interior and exterior surfaces may also contain asbestos (sprayed on ceiling and ceiling tiles; floor tile and mastic; pipe and pipe fitting insulation; other insulation; and roofing) that may be disturbed during repair or renovation. Health and environmental issues shall be considered in all work and all applicable Federal, State, and local laws and regulations shall be followed.

C.5.3.4.9.1. Protection and Safety

The SP shall protect existing work that is to remain in place or be reused by using temporary covers, shoring, bracing, and supports. The SP shall repair or replace all such items damaged during demolition.

C.5.3.4.9.2. Structures, Walls, and Partitions

The SP shall remove structures, walls, partitions, and slabs as required to properly accomplish maintenance, repair, alteration, or removal of facilities directed by the COTR.

C.5.3.4.9.3. Paving and Slabs

The SP shall remove concrete and asphaltic concrete paving and slabs including aggregate base to the depth necessary to perform required work, including patching, repairs, and demolition.

C.5.3.4.9.4. Masonry

The SP shall remove masonry carefully so as to prevent damage to surfaces that will remain and to facilitate the installation of minor masonry new work.

C.5.3.4.9.5. Concrete

The SP shall remove concrete structures by sawing along straight lines to a depth of not less than 2 inch. The SP shall make all cuts in walls perpendicular to the wall face and in alignment with cuts in the opposite face. The remainder of the concrete shall be broken out, provided that the broken area is concealed in the finished work, and that the remaining concrete is sound. At locations where the broken face cannot be concealed, it shall be ground smooth or the saw cut shall be made through the entire slab.

C.5.3.4.9.6. Filling

The SP shall fill holes and other hazardous openings.

C.5.3.4.9.7. Disposition of Material

Disposal of demolished materials shall be accomplished in existing Government dumpsters unless otherwise instructed by the COTR on individual orders. The Government will be responsible for the cost of disposal of demolished materials.

C.5.3.4.10. ELECTRICAL SYSTEMS

C.5.3.4.10.1. General

The SP shall perform all electrical work in accordance with the latest addition of the National Electrical Code (NEC) NFPA-70. The SP shall troubleshoot, repair, and install electrical system components including, but not limited to, wiring systems, conduit systems, cable systems, conductors, switches, receptacles, device plates, grounding systems, transformers, service equipment, motor control centers, control switchboards and consoles, lightning protection systems, fixtures, distribution panels, rheostats, electric doors, fans, electrical equipment, ventilating fans, sump pumps, control systems, and electrical heaters in all applicable buildings, structures, and facilities. Additional electrical maintenance requirements for motors, motor

controllers (e.g., starters, contactors, or variable speed controllers), equipment status monitoring systems, pump controls, and similar electrical apparatus that is appurtenant to plant and mechanical equipment are included in the applicable section for the maintenance of that equipment. The SP shall also perform other electrical work such as: providing temporary electrical service in emergencies; providing emergency lighting systems; testing circuits and load; and providing standby electricians for special events.

C.5.3.4.10.2. Lighting Ballasts and Fluorescent Bulbs

Sealed ballast from fluorescent light fixtures that are marked as non-polychlorinated biphenyls (PCB) may be turned in or disposed of as non-PCB items. If ballast is not labeled as non-PCB, they shall be assumed to contain PCBs for disposal purposes. Fluorescent bulbs contain mercury and shall be handled and disposed of as Resource Conservation and Recovery Act (RCRA) Universal Waste.

C.5.3.4.10.3. Materials Specifications

All new and replacement materials and components shall be approved by the Underwriters Laboratories (UL), or another nationally recognized testing organization and approved by the COTR.

C.5.3.4.10.4. Wiring Practices

The SP shall utilize wiring methods (e.g., concealed wiring) that are architecturally, electrically, and mechanically equivalent to the existing electrical systems design and installation. Replacement parts and components shall aesthetically match the existing installation and the decor of the installation. The SP shall obtain approval from the COR prior to using wiring methods, or parts and components, that are not consistent with the existing installation.

C.5.3.4.10.4.1. Aluminum Conductors

The SP shall not install aluminum conductors as part of a building wiring system.

C.5.3.4.10.4.2. Electrical Nonmetallic Tubing

The SP may use Electrical Nonmetallic Tubing (ENT) as approved by the COTR.

C.5.3.4.10.4.3. Rigid Nonmetallic Conduit

The SP shall not use rigid nonmetallic conduit within the interior wiring system of a structure, except for below grade or in slab construction, without the prior approval of the COTR.

C.5.3.4.10.5. Testing and Troubleshooting

The SP shall accomplish testing, troubleshooting, and diagnostic procedures

to properly diagnose the cause of a failure or malfunction of systems and equipment for which the SP is responsible. The SP shall maintain and utilize procedures, which will minimize the time required to identify, isolate, and correct the failure or malfunction.

C.5.3.4.11. MARKING SURFACED AREAS

The SP shall stripe paved roads with light reflective paint or thermal striping. Roadway Marking includes, but is not limited to, all curb markings, special parking markings, or crosswalks. The SP shall put up and remove necessary safety and closure barriers (e.g., cones and signs). The SP shall also block out white and yellow lane markings on paved roadways when no longer required by applying asphalt emulsion oil with sand to existing asphalt surfaces.

C.5.3.4.12. MISCELLANEOUS LABOR AND SUPPORT

C.5.3.4.12.1. Ceremony And Special Event Support

The SP shall provide all services required for ceremonies and special events. These ceremonies and special events necessitate work including, but not limited to, lighting for trees, stages, area lighting, and spotlighting; decorating areas; electrical support for the duration of the event; power requirements for bands, vendors, and sound equipment; fabrication, delivery, painting, and assembly of stages, platforms, fencing, and other wood work; hanging flags, setting up and removing signs and the placement and removal of refuse containers.

C.5.3.4.12.2. Hanover Inter-station and Intra-station Moves

The SP shall provide services for the movement of furniture and technical and non-technical equipment resulting from the relocation of Government operations. The SP shall perform work that includes, but is not limited to, moving furniture or bulky items and providing labor support to Government activities.

C.5.3.4.12.3. Special Assistance

The SP shall assist in securing equipment to transport trailers as directed by the COTR.

C.5.3.4.12.4. Gym Equipment

The SP shall repair or replace special items in gym and fitness centers, to include, but not limited to, racquetball courts, goals, nets, backboards, and cables.

C.5.3.4.12.5. Severe Weather Support

The SP shall perform inspections and work during and after severe weather as directed by the COTR, including, but not limited to, hurricane, tornado, lightning, flood, hail, blizzard, and wind damage. Inspections and work

includes, but is not limited to, electrical distribution lines, and critical generators; inspection of loose gutters, siding, and possible flying objects; boarding up and taping large glass enclosures; sand bagging; and removing fallen trees or other obstacles which present hazardous conditions.

C.5.4. HANOVER HVAC SYSTEMS OPERATION AND MAINTENANCE

C.5.4.1. INTRODUCTION

The SP shall operate, maintain, clean, repair, install and replace HVAC equipment and systems at the Hanover site. This shall include, but not be limited to, the handling of lubricating oils, refrigerants, chemicals, auxiliary machinery, and controlling the operation of chillers, boilers, compressors, package units, window units, and system controls including analog, digital and pneumatic types. The SP shall operate, maintain, repair, and replace all air distribution systems (e.g. air handling units, exhaust fans, and fan coil units), evaporative cooling equipment, vacuum systems, chilled water pumps, and hot water pumps. A list of the equipment is provided in TE 5.4-001.

C.5.4.2. SCOPE OF SERVICES

C.5.4.2.1. WORK AREA/SYSTEM DESCRIPTION

The subject HVAC systems are currently being maintained and operated and the mechanical equipment of the systems are in working condition. The SP shall operate the HVAC systems to the needs of the Government as defined by this PWS. A description of the HVAC systems for each building is provided in TE 5.4-002.

C.5.4.2.1.1. Direct Digital Controls (DDC)

The Lab Addition building and the Child Development Center utilize a central DDC control program to monitor, control, and troubleshoot their HVAC systems. It is an Andover Control system that uses Continuum controllers with Ethernet network connections to tie-in to a remote monitoring station. The Continuum software includes Continuum Explorer, Plain English, and Listview programs.

C.5.4.2.2. WORK MANAGEMENT AND CONTROL

C.5.4.2.2.1. Compliance

While performing work on HVAC systems, the SP shall comply with all applicable manufacturer recommendations and American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE); OSHA; EPA; American National Standards Institute (ANSI); Standard Gas Code (SGC); Standard Mechanical Code (SMC); SPC; and NEC, regulations, and standards.

C.5.4.2.2.2. Conservation of Energy

The SP shall maintain HVAC system outputs as required by ASHRAE for each type of equipment. The SP shall ensure that minimum air changes are effected in accordance with ASHRAE requirements and based on comparisons of the temperatures of the outside air, the return air, and the mixed air.

C.5.4.2.2.3. Reclaiming Refrigerant

The SP shall, when necessary, reclaim refrigerant from cooling systems and equipment in accordance with Section 608 of the Clean Air Act of 1972 (rev 92) and all other applicable Federal, State, local laws, and installation regulations. The SP shall maintain a Refrigerant Log to document work performed to include, but not limited to, amount of refrigerant removed, amount of refrigerant actually used, and location of equipment where refrigerant was used. This log shall be made available to the Government upon request. Refrigerants reclaimed shall be stored in accordance with established published procedures applicable to the specific refrigerant. The SP shall cycle refrigerants to be reused through a filter dryer to remove impurities. The SP shall dispose of all excess refrigerants in accordance with established published procedures applicable to the specific refrigerant. The Government will pay the costs of disposal.

C.5.4.3. SCHEDULED TASKS

The SP shall perform the tasks described below on a recurring or scheduled basis. MWOs will be issued for these tasks.

C.5.4.3.1. OPERATIONAL DUTIES

The SP shall operate the HVAC systems in the facilities listed below. The SP shall take corrective actions as needed and remedy discrepancies, such as equipment failure.

C.5.4.3.1.1. Daily Operational Checks

The SP shall perform daily, including weekends and holidays, visual checks of the safety and operational controls of HVAC equipment. This equipment must be maintained in operating condition due to the impact on various duties performed by the Government. The SP shall request a WO to correct problems discovered during daily checks.

C.5.4.3.1.2. Operational Log Sheets

The SP shall record results of operation and visual checks on an operational log sheet for the HVAC system equipment in the buildings listed below. The SP shall maintain records of log entries and make available at the Government's request. Log sheets are provided in TE 5.4-003.

Yearly:

A. CB-01 Main Lab
B. CB-24 Ice Engineering Facility
C. CB-31 Frost Effects Research Facility
D. CB-43 Child Development Center
E. CB-52 Remote Sensing
F. CB-62 Technical Information Analysis Center

Seasonal from November 1st to May 1st:

G. CB-21 Directorate of Public Works
H. CB-27 Logistics Management Office
I. CB-38 Engineering Resources Branch (ERB) Fabrication Shop
J. CB-59 Geophysics Research Facility
K. CB-64 Greenhouse
L. CS-29 Vehicle Storage
M. CS-54 TCE Plant
N. Asphalt Lab

C.5.4.3.1.3. Main Lab Boiler Water Testing and Treatment

The SP shall treat boiler water so as to control corrosion from hardness, oxygen and scale build-up so that maximum heat transfer and system efficiency is maintained. The SP shall collect feed water, boiler water and condensate samples every week, while system is operating, for testing. The SP shall perform the necessary tests to meet applicable manufacturer requirements on alkalinity and total dissolved solids and treat water accordingly. The SP shall record the results of testing and chemical usage in a log and make available at the Government's request. The Government will provide all testing supplies and water treatment chemicals.

C.5.4.3.2. PREVENTIVE MAINTENANCE AND INSPECTION

The SP shall inspect and maintain the following systems and system equipment. The systems shall be maintained free from defect and damage; no components shall be missing; all parts shall be tight; and the components shall operate as designed. As applicable, all parts shall be lubricated and all fluids shall be maintained at required levels. The SP shall request a WO to correct problems discovered during scheduled maintenance procedures.

C.5.4.3.2.1. Heating Systems

The SP shall operate, inspect, maintain and repair, as necessary, all heating systems boilers and furnaces used in the production of domestic heat. There is no central heating plant or distribution system. Individual building/structures or portions thereof are heated by a variety of systems. Some facilities have more than 1 system.

C.5.4.3.2.1.1. Boilers

On an annual basis, the SP shall shut down each boiler plant and associated system accessories, valves and traps and perform an overhaul. Items of work that cannot normally be accomplished when the boiler is in operation will be completed during this shutdown. The SP shall schedule the time and duration of the shutdown to provide minimum disruption to normal installation functions. A checklist is provided in TE 5.4-004.

C.5.4.3.2.1.2. Burners
On an annual basis the SP shall perform PM on all fuel oil and propane burners. A checklist is provided in TE 5.4-004.

C.5.4.3.2.1.3. Hot Water Heaters
On an annual basis the SP shall perform PM on all hot water heaters. A checklist is provided in TE 5.4-004.

C.5.4.3.2.1.4. Unit Heaters
On an annual basis the SP shall perform PM on all unit heaters. A checklist is provided in TE 5.4-004.

C.5.4.3.2.2. Air Conditioning and Ventilation Systems
The SP shall maintain all air conditioning and ventilating systems. Individual building/structures or portions thereof are cooled by a variety of systems. Some facilities have more than 1 system.

C.5.4.3.2.2.1. Air Cooled Condensers
On a semi-annual basis, the SP shall perform PM on all air-cooled condensers. Air cooled condensers are generally outdoor units, roof or ground mounted, and are horizontal or vertical with single or multiple banks of coils, fans and casings. Fan drives are constant, variable or intermittent cycle type with special screens and damper provisions added for cold weather operation. A checklist is provided in TE 5.4-004.

C.5.4.3.2.2.2. Package Unit Air Conditioners
On an annual basis the SP shall perform PM on all package unit air conditioners. Package units are generally roof-mounted units. Most units are packaged in 1 enclosure and contain reciprocating or hermetic compressors, DX evaporator coils or chilled water coils, fan coil units, blowers with motors and belt drives, mixing box, filters, dampers, heating coils and air cabled condensers. A checklist is provided in TE 5.4-004.

C.5.4.3.2.2.3. Window Unit Air Conditioners
On an annual basis the SP shall perform PM on all window units. A checklist is provided in TE 5.4-004.

C.5.4.3.2.2.4. Air Handling Units
On a semi-annual basis the SP shall perform PM on all air handlers. A checklist is provided in TE 5.4-004.

C.5.4.3.2.2.5. VAV Boxes
On an annual basis the SP shall perform PM on all VAV Boxes. A checklist is provided in TE 5.4-004.

C.5.4.3.2.2.6. Exhaust Fans
On an annual basis the SP shall perform PM on the exhaust fans. A checklist is provided in TE 5.4-004.

C.5.4.3.2.2.7. Liquid Chillers and Compressors
On an annual basis the SP shall perform PM on all Liquid chillers and compressors. Liquid chillers are both absorption and conventional chiller units powered by reciprocating, centrifugal or screw compressors. A checklist is provided in TE 5.4-004.

C.5.4.3.2.3. Motors
On an annual basis the SP shall perform PM on all squirrel-cage, wound-rotor, and synchronous motors in excess of 5 horsepower associated with the operation of heating, air conditioning and ventilating equipment. Maintenance of motors less than 5 horsepower is limited to cleaning and lubricating, which shall be accomplished with the maintenance of the driven machine. A checklist is provided in TE 5.4-004.

C.5.4.3.2.4. Seasonal Changeover
The SP shall be responsible for start up and shut down of all HVAC equipment, designed for seasonal use, on or about November 1st and May 1st of every year. The SP shall use the manufacturer's procedures. All water coils that have outside air passing over them shall be drained.

C.5.4.4. UNSCHEDULED TASKS
Tasks specified as unscheduled services shall be accomplished under the appropriate work level described in paragraph C.1.6.3., Levels of Work. The SP shall perform the tasks described below when initiated through an approved WO.

C.5.4.4.1. REPAIR
The SP shall perform unscheduled repair on systems including, but not limited to, fume hoods, cooling systems, heating systems, air conditioning units, window air conditioning units, window heat pumps, air compressors, vacuum systems, mechanical ventilation equipment, air distribution systems, and automatic temperature control systems. The SP shall inspect, test, clean, adjust, calibrate, and repair or replace all parts, or components, necessary to restore the equipment, or system to a condition to perform the function for which it was designed. The work also includes connecting new equipment to existing facilities. Every attempt shall be made to provide interruption free service.

C.5.4.4.1.1. Cooling Equipment
The SP shall adjust, modify, replace, and repair all cooling systems, to include, but not limited to, motors, fans, drains, valves, and control devices. The SP shall locate and remove piping obstructions from fan coil units, air handler units with coils, and other cooling equipment. Standard trade

practices, methods, and equipment shall be used.

C.5.4.4.1.2. Heating Equipment

The SP shall maintain and repair all steam-fitting, low, medium, and high pressure steam, and high-temperature, high-pressure hot water heating lines for heating and processing boilers, converters, pumps and associated controls, piping, and equipment. The SP shall maintain and repair all steam, hot water, gas fired, oil fired, electric generated heating equipment, and components.

C.5.4.4.2. AIR FILTER MAINTENANCE

On an as required basis the SP shall replace roll, viscous, and throw away type filters.

C.5.4.4.3. AIR COMPRESSOR MAINTENANCE

The SP shall perform maintenance on all air compressors as per the manufacturer's recommendations.

C.5.4.4.4. TEMPORARY SERVICES

The SP shall provide temporary services as directed by the COTR to support the installation mission.

C.5.4.4.5. SCHEDULED ELECTRICAL OUTAGE

At times it may become necessary for the Government to interrupt utility services to specified buildings. The SP shall shut down and start up mechanical systems where necessary.

C.5.4.4.6. EQUIPMENT MODIFICATIONS

When the SP determines that the modification of HVAC equipment and systems is necessary. The SP shall notify the COTR and shall submit recommendations of the modification to the COTR for approval. Upon approval from the COTR, and receipt of a valid WO, the SP shall modify HVAC equipment and systems and shall evaluate the modification of the equipment for compliance with manufacturer's specifications.

C.5.4.4.7. MARKING

The SP shall mark and color code all new or unmarked exposed piping or conduit for chilled water, heating water, domestic water, fuel oil, electric, LP gas, refrigerant, and all related HVAC systems. New marking or renewal of obscure and faded markings shall conform to installation policies and all applicable Federal, State, local, and Army regulations.

C.5.5. HANOVER REFRIGERATION SYSTEMS OPERATION AND MAINTENANCE

C.5.5.1. INTRODUCTION

The SP shall operate, control, inspect, maintain, repair, clean and install all refrigeration plants and systems at the Hanover site. A variety of refrigeration systems shall be operated maintained and repaired; cascade systems, direct-expansion systems, recirculation systems, flooded systems, and unitary systems. The refrigerants used are anhydrous ammonia, ethylene glycol, D'Limonene, Syltherm, R-13, R-22, R-23, R-404A, R-408A, R-502, and R-508A. Equipment includes, but is not limited to, screw, centrifugal and reciprocating compressors, condensers, receivers, evaporators, coils, chillers, cold baths, freeze-thaw units, heat exchangers, air handling units, unloaders, slide valves, piping, pressure vessels, air compressors, filters, low side float systems, pneumatic valves, purgers, pumps, expansion and control valves, instrumentation, regulators, motors, microprocessors, alarm systems, and data loggers. A list of the refrigeration equipment is provided in TE 5.5-001.

C.5.5.2. SCOPE OF SERVICES

C.5.5.2.1. WORK AREA/SYSTEM DESCRIPTION

C.5.5.2.1.1. Anhydrous Ammonia Refrigeration System

The ammonia refrigeration system is a two-stage ammonia system that services the IEF. It has a capacity of 250 tons of refrigeration supplying three (3) primary cold rooms. The system relies on pressure changes in the plant to push the ammonia through each stage in the refrigeration process. Air cooling is accomplished by re-circulating liquid ammonia through ceiling mounted air handling units in the cold rooms. Water cooling is done using direct expansion of the ammonia in submerged coils. Waste heat from the refrigeration cycle is recovered using a glycol heat exchanger and used to melt ice and heat the water, as well as heat the work areas and office spaces. A description of the functions of the major system equipment and a schematic is provided in TE 5.5-002

C.5.5.2.1.1.1. IEF Cold Rooms

The cold rooms are comprised of the Test Basin, the Research Area, and the Flume; and all 3 are independently controlled and cycled to support a variety of research projects. Each of the rooms can be refrigerated to –20ºF. The Test Basin is a 120 ft x 30 ft tank used to conduct large-scale studies of ice forces on structures. The Research Area is used to simulate ice interaction with detailed scale models of proposed engineering projects in an 80 ft. x 160 ft. room. The Flume is a 2 ft x 4 ft x 120 ft long flume tank used to investigate the effects on river ice hydraulics and processes under ice covers.

C.5.5.2.1.1.2. Ammonia Refrigeration Control System

The ammonia refrigeration control system is based on Programmable Logic Controllers (PLC) and compressor microprocessors interfaced with a Supervisory Control and Data Acquisition (SCADA) on a central desktop computer. The SCADA system continuously monitors and controls the operation of the refrigeration system using Rockwell Automation programming software including RSLogix, RSView, and RSLinx. If a parameter is outside the operational tolerances, the system will notify personnel of abnormal plant conditions and safely shutdown. There are 5 PLC panels dedicated to specific areas: the 3 cold room panels, the master safety and control panel, and the condensers and the transfer system panel. The PLCs are programmed with RSLogix software and can run their respective areas independently in the event the SCADA computer is disabled. The SP shall operate, maintain, program, and troubleshoot these programs.

C.5.5.2.1.2. Ethylene Glycol Refrigeration System

There are 2 main refrigeration systems that use R-22 for their primary refrigerant and ethylene glycol for their secondary refrigerant. The TCE Water Treatment Plant provides the process water used for cooling the plants' heat exchangers.

C.5.5.2.1.2.1. Main Laboratory

The Main Lab refrigeration system uses a 30 ton refrigeration unit to service a complex of 23 Cold Rooms, and a Cold Pit test area. Each room can be individually controlled down to –20ºF. A 20 ton standby unit is available for low-load or maintenance periods. Three cold rooms have independent refrigeration units.

C.5.5.2.1.2.2. Frost Effects Research Facility (FERF)

The FERF refrigeration system can produce 120 tons of refrigeration to bring 27,000 square feet of test area down to 0ºF. There is an additional 42 tons available for cold panels that can freeze test sections filled with asphalt or soil to -30ºF.

C.5.5.2.1.3. Syltherm Refrigeration System

The Tisdale unit in the Material Evaluation Facility (MEF) uses R-22 to cool its secondary refrigerant, Syltherm, to –70ºF. It is a 10 ton low temperature unit used to test rapid deployment equipment in severe weather conditions.

C.5.5.2.1.4. D'Limonene Refrigeration System

The Low Temp Chiller in the Main Lab Addition is a 2.7 ton cascade system using both R-22 and R-23 to cool its secondary refrigerant D'Limonene down to –80º F.

C.5.5.2.1.5. Specialized Refrigeration Systems

The SP must also operate a variety of unique low temperature refrigeration systems on an as needed basis. The primary refrigerants used in these systems are R-13, R-22, R-404A, R-408A, R-502, and R-508A. A list of these specialty systems is provided in TE-5.5-003.

C.5.5.2.2. WORK MANAGEMENT AND CONTROL

C.5.5.2.2.1. Compliance

While performing work on refrigeration systems, the SP shall comply with all applicable manufacturer recommendations and OSHA; EPA; ANSI; Standard Mechanical Code (SMC); SPC; and NEC regulations and standards.

C.5.5.2.2.2. Reclaiming Refrigerant

The SP shall, when necessary, reclaim refrigerant from cooling systems and equipment in accordance with Section 608 of the Clean Air Act of 1972 (rev 92) and all other applicable Federal, State, and local laws. The SP shall maintain a Refrigerant Log to document work performed to include, but not limited to, amount of refrigerant removed, amount of refrigerant actually used, and location of equipment where refrigerant was used. This log shall be made available to the Government upon request. Refrigerants reclaimed shall be stored in accordance with established published procedures applicable to the specific refrigerant. The SP shall cycle refrigerants (except ammonia) to be reused through a filter dryer to remove impurities. The SP shall dispose of all excess refrigerants in accordance with established published procedures applicable to the specific refrigerant. The Government will pay the costs of disposal.

C.5.5.2.2.3. Process Safety Management (PSM)

PSM is an on-going process designed to minimize the clear and present dangers involved with highly hazardous chemicals such as the anhydrous ammonia used in the IEF refrigeration system. There are 13 required elements of PSM that have been incorporated into a plan to reduce the risks of damage to the environment and human health. The 13 elements of PSM are provided in TE 5.5-004.

C.5.5.2.2.3.1. PSM Plan

A PSM team that is active in the engineering, operation, maintenance and management of the ammonia refrigeration system has developed a PSM plan. The SP shall provide 2 employees to serve as members of the PSM team. These employees shall have experience and knowledge of the ammonia refrigeration system process. It is available for reference at the DPW Engineering Division Office at the Hanover site.

C.5.5.2.2.3.2. Emergency Response Plan (ERP)

The ERP describes procedures, responsibilities and actions necessary to respond to unplanned releases, and potential releases, of anhydrous ammonia, which may injure persons or damage the environment. OSHA 29 CFR 1910.120 covers the ERP and the current edition is provided in TE 5.5-005. The plan will be revised during the phase-in period of the contract to reflect any applicable changes resulting from this competition.

C.5.5.2.2.3.2.1. Emergency Response Team (ERT)

The Emergency response team is responsible for responding to ammonia leaks when the emergency response plan is activated. The team will consist of personnel from the Government, the SP, and the Hanover Fire Department. All SP team members shall be trained, per OSHA, as Hazardous Material Technicians. It is required that all SP personnel that operate or maintain the ammonia refrigeration system be members of the team

C.5.5.2.2.3.2.2. Plan Activation

When the ERT is activated, the SP shall provide a minimum of 7 responders to perform the following functions:

A. 2 operators or mechanics as primary and backup entry personnel, Level A PPE qualified
B. 2 team members as primary and backup entry personnel, Level A PPE qualified
C. 1 senior level operator or mechanic as technical advisor, no PPE qualification required
D. 1 team member for decontamination duties, Level A PPE qualified
E. 1 team member assigned a function by the Incident Commander, no PPE qualification required.

C.5.5.2.2.3.2.3.Plan Implementation

The Fire Chief of the Hanover Fire Department will be the on-site Incident Commander. He has the responsibility and authority to direct all response operations, ERT personnel, equipment and other resources to control the leak.

C.5.5.2.2.3.2.4.Post Operations Critique

The SP shall participate in the post operations critique as described in the ERP.

C.5.5.2.2.4. Risk Management Worksheet

All maintenance and repair work on the ammonia refrigeration system, equipment, piping, or components that involves opening up the system to the atmosphere requires a Risk Management Worksheet. It is a hazard

assessment that details the safety precautions that must be established prior to beginning work. The SP shall provide the COTR with the worksheet, identifying the hazards and controls as necessary, for approval 5 working days prior to planned work. A risk management worksheet is provided in TE 5.5-006.

C.5.5.3. SCHEDULED TASKS

The SP shall perform the tasks described below on a recurring or scheduled basis. MWOs will be issued for these tasks.

C.5.5.3.1. OPERATIONAL DUTIES

The SP shall operate the refrigeration systems in the facilities listed below. The SP shall assist and work with engineering and research personnel to ensure refrigeration system operation meets research requirements. The SP shall take corrective actions as needed and remedy discrepancies, such as equipment failure.

A. Main Lab – Glycol System for Cold Rooms
B. Ice Engineering Facility – Ammonia Refrigeration System

C.5.5.3.1.1. Daily Operational Checks

The SP shall perform visual checks of the safety and operational controls of the refrigeration equipment in the Main Lab and the IEF every 4 hours, 7 days a week, 365 days a year. This equipment must be maintained in operating condition due to the impact on specific laboratory test requirements. Auxiliary equipment (pumps, regulators, water supply) shall be visibly inspected. The SP shall request a WO to correct problems discovered during daily checks.

C.5.5.3.1.2. Operational Log Sheets

The SP shall record results of operation and visual checks on an operational log sheet for each refrigeration system. The SP shall maintain records of log entries and make available at the Government's request. Log sheets are provided in TE 5.5-007.

C.5.5.3.2. PREVENTIVE MAINTENANCE

The SP shall inspect and maintain the following refrigeration equipment as listed in TE 5.5-001. The equipment shall be maintained free from defect and damage; no components shall be missing; all parts shall be tight; and the components shall operate as designed. As applicable, all parts shall be lubricated and all fluids shall be maintained at required levels. The SP shall request a WO to correct problems discovered during scheduled maintenance procedures.

C.5.5.3.2.1. Liquid Cooled Condenser

On a semi-annual basis the SP shall perform PM on all water-cooled

condensers. Additional PM shall be performed when there is an increase in head pressure. This maintenance shall be accomplished under the appropriate work level described in paragraph C.1.6.3, Levels of Work. A checklist is provided in TE 5.5-008.

C.5.5.3.2.2. Air Cooled Condenser
On a semi-annual basis the SP shall perform PM on all air cooled condensers. A checklist is provided in TE 5.5-008.

C.5.5.3.2.3. Refrigeration Air Handler
On a semi-annual basis the SP shall perform PM on all refrigeration air handlers. A checklist is provided in TE 5.5-008.

C.5.5.3.2.4. Cold Room Refrigeration Units
On a semi-annual basis the SP shall perform PM on all cold room refrigeration units. A checklist is provided in TE 5.5-008.

C.5.5.3.2.5. Self Contained Breathing Apparatus (SCBA)
On a monthly basis, the SP shall perform PM on all SCBA as per Appendix K of the Anhydrous Ammonia Emergency Response Plan, which is given in TE 5.5-005.

C.5.5.3.3. AMMONIA REFRIGERATION SYSTEM SAFETY COMPONENTS
The SP shall maintain the safety systems in the ammonia refrigeration system. A list of the safety components is provided in TE 5.5-009.

C.5.5.3.3.1. Safety Relief Valves
On a yearly basis the SP shall inspect the safety relief valves for corrosion and weeping. A list of the ammonia refrigeration safety relief valves is provided in TE 5.5-009 and a checklist is provided in TE 5.5-010.

C.5.5.3.3.2. Safety Relief Vent Lines
On a monthly basis the SP shall check the drip legs on the safety relief vent line for weeping. A checklist is provided in TE 5.5-010.

C.5.5.3.3.3. Pressure Transducers
On a yearly basis the SP shall calibrate the pressure transducers on the compressors. A checklist is provided in TE 5.5-010.

C.5.5.3.3.4. Control Alarms
On a semi-annual basis the SP shall perform operational tests of the control system alarms, interlocks, and cut outs. The SP must develop a procedure for testing the SCADA program, compressor microprocessors and PLCs to ensure the safety cut-outs, interlocks, and operational parameters are functioning properly. The SP shall provide 1 copy of the test procedure to the COTR for approval 15 calendar days prior to the end of the phase-in

period. A new plan shall be submitted to the COTR 10 working days prior to the start of any proposed changes to the plan. A copy of the PLC ladder logic and a list of the program inputs and outputs are available for reference at the DPW Engineering Office at Hanover.

C.5.5.4. UNSCHEDULED TASKS

Tasks specified as unscheduled services shall be accomplished under the appropriate work level described in paragraph C.1.6.2, Levels of Work. The SP shall perform the tasks described below when initiated through an approved WO.

C.5.5.4.1. OPERATION OF REFRIGERATION SYSTEMS

The SP shall operate and maintain all refrigeration equipment and systems, not covered under paragraph C.5.5.3., Scheduled Tasks, which are in operation during research testing. Test schedules may require the SP to operate and maintain refrigeration systems 24 hours a day, 7 days a week to achieve optimum results and meet deadlines. The SP shall assist and work with engineering and research personnel to ensure refrigeration system operation meets research requirements. The SP shall take corrective actions as needed and remedy discrepancies, such as equipment failure.

C.5.5.4.1.1. Daily Operational Checks

The SP shall perform daily, including weekends and holidays, visual checks of the safety and operational controls of refrigeration equipment while in operation for research tests. This equipment must be maintained in operating condition due to the impact on test results. Check equipment per manufacturer's recommendation and for specific laboratory test requirements. The SP shall request a WO to correct problems discovered.

C.5.5.4.1.2. Operational Log Sheets

The SP shall record results of operation and maintenance checks on an operational log sheet for each refrigeration system. The SP shall maintain records of log entries and make available at the Government's request. Log sheets are provided in TE 5.5-005.

C.5.5.4.2. REFRIGERATION COMPRESSOR MAITNENANCE

The SP shall perform maintenance on all refrigeration compressors as per the manufacturer's recommendations.

C.5.5.4.3. AIR COMPRESSOR MAINTENANCE

The SP shall perform maintenance on all air compressors as per the manufacturer's recommendations.

C.5.5.4.4. FILTER MAINTENANCE

The SP shall change all air, water and glycol filters when pressure drop gets above the manufacturer's recommendation.

C.5.5.4.5. REPAIR

The SP shall perform unscheduled repair on systems including, but not limited to, compressors, pumps, well pumps, air handling units, valves, condensers, refrigerators, freezers, ice machines and refrigeration chillers. The SP shall inspect, test, clean, adjust, calibrate, and repair or replace all parts, or components, necessary to restore the equipment, or system to a condition to perform the function for which it was designed.

C.5.5.4.6. EQUIPMENT MODIFICATIONS

Based on parameters of a given research project, it may be necessary to modify the refrigeration equipment to attain the desired test conditions. Research personnel will provide the SP with detailed plans and instructions will be attached to all WOs.

C.5.6. HANOVER TCE PLANT OPERATION AND MAINTENANCE

C.5.6.1. INTRODUCTION

The SP shall perform services as required in this PWS to provide operation, maintenance, and repair of the Trichloroethylene (TCE) Treatment Plant at the Hanover site. The plant consists of, but is not limited to, green sand filters, stripping towers, carbon absorbers, pumps, carbon dioxide (CO_2) cylinders, mixing tanks, air compressors, a holding tank, flow meters, and blowers. A list of the equipment is provided in TE 5.6-001.

C.5.6.2. SCOPE OF SERVICES

C.5.6.2.1. WORK AREA/SYSTEM DESCRIPTION

C.5.6.2.1.1. TCE Treatment Plant

The TCE Treatment Plant is used to remove TCE from the groundwater. The plant shall be maintained free from defect and damage; no components shall be missing; all parts shall be tight; and the components shall operate as designed.

C.5.6.2.1.2. TCE Removal Process

The TCE removal process starts by pumping groundwater out of 4 deep wells into the plant. As the water enters the plant it passes through 2 green sand filters, used in parallel, to remove the iron deposits. Potassium permanganate ($KMnO_4$) is injected before the water enters the filters to aid in the iron removal, and start the process of breaking down the TCE. After the water passes through the filters, it travels through the first stripping tower. The water is collected into a reservoir below the tower and is pumped up to the top of the second stripping tower. The water is delivered through distribution nozzles at the top of the towers and passes it over packing material within the tower. TCE is a volatile organic compound that becomes airborne by the stripping process. Air blowers send air up from the bottom of each tower and the airborne TCE enters the air stream. The air stream passes through a heating coil and then it enters 1 of 2 carbon absorbers where the TCE is collected. The water coming out of the second tower has completed the treatment process and can then be used as non-contact cooling water for the facilities refrigeration systems. The stripping process alters the potential hydrogen (pH) of the process water and has to be regulated by adding CO_2 as it is pumped out of the plant preventing calcium carbonate build-up in the facility piping systems.

C.5.6.2.2. WORK MANAGEMENT AND CONTROL

C.5.6.2.2.1. Compliance

The SP shall schedule, control and perform all work necessary to operate and maintain the TCE plant according to the guidelines specified by the

National Pollutant Discharge Elimination System (NPDES) permit issued to CRREL by the EPA. A copy of the NPDES discharge permit is available at the Hanover DPW Engineering Division Office.

C.5.6.2.2.2. Alarm System

The TCE plant is equipped with an alarm system that monitors various equipment operations. Any failure of equipment or deviation of an acceptable operational limit sends an alarm over hand held radios. The SP shall respond to all alarms as Priority 1 emergencies.

C.5.6.3. SCHEDULED TASKS

The SP shall perform the tasks described below on a recurring or scheduled basis. MWOs will be issued for these tasks.

C.5.6.3.1. OPERATIONAL DUTIES

The SP shall operate the TCE plant system and equipment. The SP shall take corrective actions as needed and remedy discrepancies, such as equipment failure.

C.5.6.3.1.1. Daily Operational Checks

The SP shall perform daily visual checks, including weekends and holidays, of the safety and operational controls of the TCE plant and equipment. The SP must maintain proper and efficient operation of the system to prevent an impact on the facilities laboratory test requirements. The SP shall request a WO to correct problems discovered during daily checks.

C.5.6.3.1.2. Daily Operational Logs

The SP shall record results of operation and visual checks on an operational log sheet for each piece of equipment listed below. The SP shall maintain records of log entries and make available at the Government's request. Log sheets are provided in TE 5.6-002.

A. Potassium Permanganate Tanks
B. Air compressors
C. Carbon Dioxide Cylinders
D. Hot Water Circulating Pump
E. Vertical Turbine Pumps
F. Green Sand Filters
G. Blowers
H. Groundwater submersible well pumps

C.5.6.3.1.3. Backwash of Green Sand Filters

The TCE plant has 2 green sand filters that require 2 backwashes each per week. Additional backwashes may be required when the pressure exceeds the manufacturer's recommendations and shall be considered unscheduled Level II work. The backwash process shall be accomplished while

maintaining the required water supply to the refrigeration plants. The backwash drain water is collected in a holding tank and drained at a metered discharge rate to the sanitary sewer system. The procedure for backwashing is provided in TE 5.6-003.

C.5.6.3.1.4. Plant Chemistry

The TCE plant requires continuous injection of carbon dioxide and potassium permanganate to control the chemistry of the water. The Government will provide the carbon dioxide and the potassium permanganate.

C.5.6.3.1.4.1. Carbon Dioxide

The SP shall regulate, maintain, connect and disconnect the cylinders that supply CO_2 for the system. CO_2 is injected into the discharge piping from the plant as it is pumped up to the Main Lab to be used in the refrigeration system. The CO_2 is adjusted as needed to maintain a pH level in the system between 6.0 and 7.0. The cylinders are replaced approximately 8 to 10 times a month. The Government will provide the CO_2 tanks required to complete the tasks outlined in this PWS. The SP shall notify the COTR in writing when the stock of CO_2 tanks drops below a minimum level of 2 tanks or when the stock will be expended prior to the scheduled weekly delivery.

C.5.6.3.1.4.2. Potassium Permanganate

The SP is responsible for measuring and mixing the $KMnO_4$ injected into the groundwater as it enters the plant. The mixing tanks are refilled approximately 10 to 12 times a month. The procedure for mixing $KMnO_4$ is provided in TE 5.6-004.Proper use of PPE is required as per the MSDS; i.e., goggles or facemask, dust respirator, rubber gloves, and protective clothing, such as apron or coveralls. A copy of the MSDS sheet is on file at the Hanover site. The Government will provide the potassium permanganate required to accomplish the tasks outlined in this PWS. The SP shall notify the COTR in writing when their stock of potassium permanganate requires replenishment. Notification should allow for one week's lead time for order processing and delivery.

C.5.6.3.1.5. Water Sampling and Permit Reporting

The SP shall collect water samples and take measurements on flow rates, ph, and temperature as outlined below. Changes in reporting parameters or system operation may require additional sampling and measurements. Any additional sampling or measurements shall be accomplished as Level ll work.

C.5.6.3.1.5.1. Water Samples

The SP shall collect, package, and ship water samples for testing. Costs of the test services are covered under a separate contract. The SP shall

take samples at the locations listed below. The Government will provide sampling containers, labels, chain of custody forms, shipping cartons and postage.

A. Monthly:

Sampling Method: EPA - 624

1) Deep Well #1
2) Deep Well #2
3) Deep Well #3
4) Deep Well #4
5) Deep Well #5
6) Stripping Tower #1 Inlet
7) Stripping Tower #1 Outlet
8) Stripping Tower # 2 Inlet
9) Stripping Tower #2 Outlet
10) Main Lab Reservoir
11) Navy Pond

B. Quarterly:

Sampling Method: EPA – 200.8

1) Green Sand Filter A Inlet
2) Green Sand Filter B Inlet
3) Green Sand Filter A Outlet
4) Green Sand Filter B Outlet

C.5.6.3.1.5.2. Meter Readings
The SP shall record daily meter readings for flow rate and hours at the following locations:

A. Deep well #1
B. Deep well #2
C. Deep well #3
D. Deep well #4
E. Deep well #5
F. Backwash Holding Tank

C.5.6.3.1.5.3. pH and Temperature Readings
The SP shall take measurements of pH and temperature at the Navy Pond 3 days a week. The Government will supply the portable meter for taking pH readings.

C.5.6.3.1.5.4. Reports
On a monthly basis the SP shall provide the COTR with a report of the daily meter readings and measurements of pH and temperature on the EPA Form 3320.

C.5.6.3.2. PREVENTIVE MAINTENANCE
The SP shall maintain the following system equipment. The systems shall be maintained free from defect and damage; no components shall be missing; all parts shall be tight; and the components shall operate as designed. As applicable, all parts shall be lubricated and all fluids shall be maintained at required levels. The SP shall request a WO to correct problems discovered during scheduled maintenance procedures.

C.5.6.3.2.1. Vertical Turbine Pumps
On a monthly basis the SP shall perform PM on all vertical turbine pumps. A checklist is provided in TE 5.6-005.

C.5.6.3.2.2. Blowers
On an annual basis the SP shall perform PM on all blowers. A checklist is provided in TE 5.6-005.

C.5.6.3.2.3. Air Stripping System Equipments
On an annual basis the SP shall perform PM on the air stripping system equipment. A checklist is provided in TE 5.6-005.

C.5.6.3.2.4. Potassium Permanganate Mixing Tanks
On a semi-annual basis the SP shall perform PM on the Potassium Permanganate mixing tanks. A checklist is provided in TE 5.6-005.

C.5.6.4. UNSCHEDULED TASKS
The SP shall perform the tasks described below on an as needed basis. Tasks shall be performed when a WO is issued to the SP.

C.5.6.4.1. REPAIR
The SP shall perform unscheduled repair on plant equipment including, but not limited to, pumps, stripping towers, green sand filters, mixing tanks, and carbon absorbers. The SP shall inspect, test, clean, adjust, calibrate, and repair or replace all parts, or components, necessary to restore the equipment, or system to a condition to perform the function for which it was designed.

C.5.6.4.2. AIR COMPRESSOR MAINTENANCE
The SP shall perform maintenance on all air compressors as per the manufacturer's recommendations.

C.6. APPLICABLE PUBLICATIONS AND FORMS

C.6.1. GENERAL INFORMATION

Publications and forms that apply to the PWS are listed below. The SP is obligated to follow publications and use forms to the extent specified in other sections of this PWS and to the extent required by law. The Government at the start of the contract shall provide all publications and forms listed.

Supplements or amendments to listed publications from an organizational level may be issued during the life of the contract.

The SP shall utilize the following procedure prior to deviating from Government publications or forms in the performance of this contract:

A. Develop and keep current a published manual of SP publications and forms.
B. Specifically delineate the SP's responsibilities and actions that deviate from the applicable Government publication(s) or form(s).
C. Comply with the intended effect or product contemplated.
D. Ensure publication or form is not in conflict with a portion of this PWS.

The Government will have unlimited rights to use, duplicate, or disclose such SP publications, in whole or part, in all manners and for all purposes whatsoever. In the event the follow-on contract is awarded to other than the incumbent, the incumbent SP's publications shall be made available to the successor SP for information purposes until the successor SP's publications are published and approved by the Government.

C.6.2. APPLICABLE PUBLICATIONS

PUBLICATION NO./ SECTION/PARA/LINE	Title	Date
INDUSTRY STANDARDS/REFERENCES		
ACI 318	Structural Concrete Building Code	Latest
ANSI C2	National Electric Safety Code	Latest
ANSI/IEEE STD 142	Practice for Grounding of Industrial and Commercial Power Systems	Latest
ANSI/NFPA 70	National Electrical Code	Latest
ANSI 2245.1	Safety Requirements for Refuse Collection and Compaction Equipment	Latest
ASME	Boiler and Pressure Vehicle Code	Latest
AWWA C601-68	Standards of Disinfecting Water Mains	Latest
AWWA M-20	Water Clarification Principles and Practices	Latest
BOCA	National Building Code	Latest
BOCA	National Mechanical Code	Latest
BOCA	National Plumbing Code	Latest
IEEE STD 64	Guide for Acceptance and Maintenance of Insulating Oil in Equipment	Latest
IBC	International Building Council	Latest
ICC	International Code Council	Latest
IEEE STD 446	Recommended Practice for Emergency and Standby Power Systems	Latest
NFPA Codes, Volumes1-11	National Fire Protection Association, Codes and Standards	Latest
NFPA 13A	NFPA, Inspection Testing and Maintenance of Sprinkler Systems	Latest
NFPA 101	NFPA, Life Safety Code	Latest
UL	Underwriters Laboratory Standards	Latest
PUBLIC LAWS		
PL 91-190	National Environmental Policy Act of 1969	1969
PL 91-596	Occupational Safety and Health Act of 1970	1970
PL 92-574	Noise Control Act of 1972	1972
PL 93-205	Endangered Species Act of 1973	1973
PL 93-523	Safe Drinking Water Act of 1974	1974
PL 94-217	Clean Water Act of 1977 (Rev 92)	1977/92
PL 94-469	Toxic Substance Control Act of 1976	1976
PL 94-580	Resource Conservation and Recovery Act (RCRA) of 1976 Note: Revisions currently before Congress	1976
PL 95-95	Clean Air Act of 1977 (Rev 92)	1977/ Rev 1992
PL 96-510	Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERLA) Includes SARA Amendments of 1986	1980
PL 261-267	EPA Hazardous Waster Regulations (Referenced in PL 94-5801)	1980

PUBLICATION NO./ SECTION/PARA/LINE	Title	Date
PL 403	Davis Bacon Act	1935
CODE OF FEDERAL REGULATIONS (CFR)		
5 CFR, Part 351	Reduction in Force	Latest
5 CFR, Part 2635	Standards of Ethical Conduct for Employees of the Executive Branch	Latest
29 CFR, Part 1910.1-441	Occupational Safety and Health Standards	Latest
29 CFR, Part 1910. 1000-1450	Occupational Safety and Health Standards	Latest
29 CFR, Part 1926	Safety and Health Regulations for Construction	Latest
35 CFR, Part 665	Manual on Uniform Traffic Control Devices for Streets and Highways	Latest
40 CFR, Part 100-149 Part 400-699	Clean Water Act of 1977 (Rev 92)	Latest
40 CFR, Part 112	Oil Pollution Prevention	Latest
40 CFR, Part 117	Determination of Reportable Quantities for Hazardous Substances	Latest
40 CFR, Part 243	Guidelines for Solid Waste Storage and Collection	Latest
40 CFR, Part 260-279	Identification and Listing of Hazardous Waste	Latest
40 CFR, Part 63	National Emission Standards for Hazardous Air Pollutants	Latest
40 CFR, Part 763	Protection of Environment, Asbestos	Latest
40 CFR, Part 799	Toxic Substance Control Act of 1976	Latest
40 CFR, Parts 171-178	Performance-Oriented Packaging and Hazard Communications Standards HM-181	Latest
40 CFR, Parts 260-271	Hazardous Waste Management System: General	Latest
41 CFR, Part 120-74	Facility Management	Latest
EXECUTIVE ORDERS AND U.S. CODE		
EO 11514	Protection and Enhancement of Environmental Quality	Mar 1970
EO 12088	Federal Compliance With Pollution Control Standards	Oct 1978
5 U.S.C. § 552A	Privacy Act (5 USC 552a) (Freedom of Information Act)	1974
5 U.S.C. App. 7	Complaints by employees	
42 U.S.C. § 4321	National Environmental Policy Act (NEPA)	7/24/2004
ARMY REGULATIONS		
AR 58-1	Management, Acquisition and Use of Motor Vehicles	8/10/2004
AR 190-5	Motor Vehicle Traffic Supervision	7/8/1988
AR 190-16	Physical Security	6/28/1991
AR 380-5	Information Security Program	9/29/2000
AR 385-40	Accident Reporting and Records	11/1/1994
AR 385-55	Prevention of Motor Vehicle Accidents	3/12/1987

PUBLICATION NO./ SECTION/PARA/LINE	Title	Date
AR 380-67	Personnel Security Program	9/8/1988
AR 600-55	The Army Driver and Operator Standardization Program (Selection, Training, Testing and Licensing)	12/31/1993
AR-735-5	Policies and Procedures for Property Accountability	06/10/2002
OMB		
OMB Memorandum M-01-24	Reporting Instructions for the Government Information Security Reform Act	06/22/2001
Circular No. A-130	Management of Federal Information Resources	02/08/1996
FEDERAL ACQUISITION REGULATIONS		
FAR 13.201 (b)	Actions At or Below the Micro-Purchase Level	Latest
FAR 45.6	Reporting, Redistribution, and Disposal of Contract Inventory	Latest
FAR 52, 207-3	Right of First Refusal of Employment	Latest
USACE MANUALS AND REGULATIONS		
USACE 2012	USACE 2012	2003
EM 385-1-1	USACE Health and Safety Requirement Manual	11/3/03
FWTB 200-01-14	Florescent Light Bulb Management and Disposal	3/31/01
ER 25-1-74	Electronic Mail	3/21/94
ER 25-30-11	Public Works Publications Inventory	1/25/99
ER 200-2-2	Procedures for Implementing National Environmental Policy Act	3/4/88
ER 200-2-3	Environmental Compliance Policies	10/30/96
ER 380-1-18	Technology Transfer, Disclosure of Information and Contact with Foreign Representatives	8/1/96
ER 385-1-40	Occupational Health Program	7/28/80
ER 385-1-85	Safety and Occupational Health Program Management Evaluation	7/31/91
ER 385-1-89	Hearing Conservation Plan	1/19/83
ER 385-1-90	Respiratory Protection Program	3/28/83
ER 385-1-92	Safety and Occupational Health Requirements for Hazardous, Toxic, and Radioactive Waste Activities	7/1/03
ERDC Regulations		
CR-25-1-4	Information Management Corporate Information Assurance Policy	7/26/01
CR 25-50-3	Information Management Records Management, Preparing and Managing Correspondence	7/20/01
CR-215-1-1	Morale, Welfare, and Recreation Regulations	3/21/03
CR-710-1-1	Personal Property Administration	11/5/01
CRREL Regulations		
CR 380-1-4	CRREL Key Control Procedures	11/15/1991

PUBLICATION NO./ SECTION/PARA/LINE	Title	Date
CR 385-1-7	CRREL Safety Program	2/16/1990
CR 385-1-9	CRREL Respiratory Protection Program	11/21/1995
CR 385-1-10	CRREL Hazard Communication Program	4/1/1996
CR 750-1-1	Maintenance of Supplies and Equipment – Calibration System	5/4/1992
CRREL SOP	Foreign Nationals, Reference ER380-1-18	
CRREL RV-Z-6	Fire Prevention and Protection Program	1/19/2004

C.6.3. APPLICABLE FORMS

FORM NO./ SECTION/PARA/LINE	TITLE	DATE
OF-347	Order for Supplies or Services	1995
OF-7	Property Pass	1988
SF-120	Report of Excess Personal Property	1957
SF-122	Transfer Order Excess Personal Property	1974
SF-123	Transfer Order Surplus Personal Property	1982
SF-135	Records Transmittal and Receipt	1985
SF-145	Telephone Service Request	1982
SF-182	Request, Authorization, Agreement and Authorization of Training	1979
SF-85	Questionnaire for Non-Sensitive Positions	1995
SF-86A	Continuation Sheet for SF86, SF85, and SF85-P	1995
SF-94	Statement of Witness	1983
DD Form 1172-2	Application for DoD Common Access Card, Deers Enrollment	2002
DD Form 2220	DoD Registered Vehicle	2004
DRMS Form 1930	Hazardous Waste Profile Sheet	2004
EPA Form 3320-1	Discharge Monitoring Report	1996